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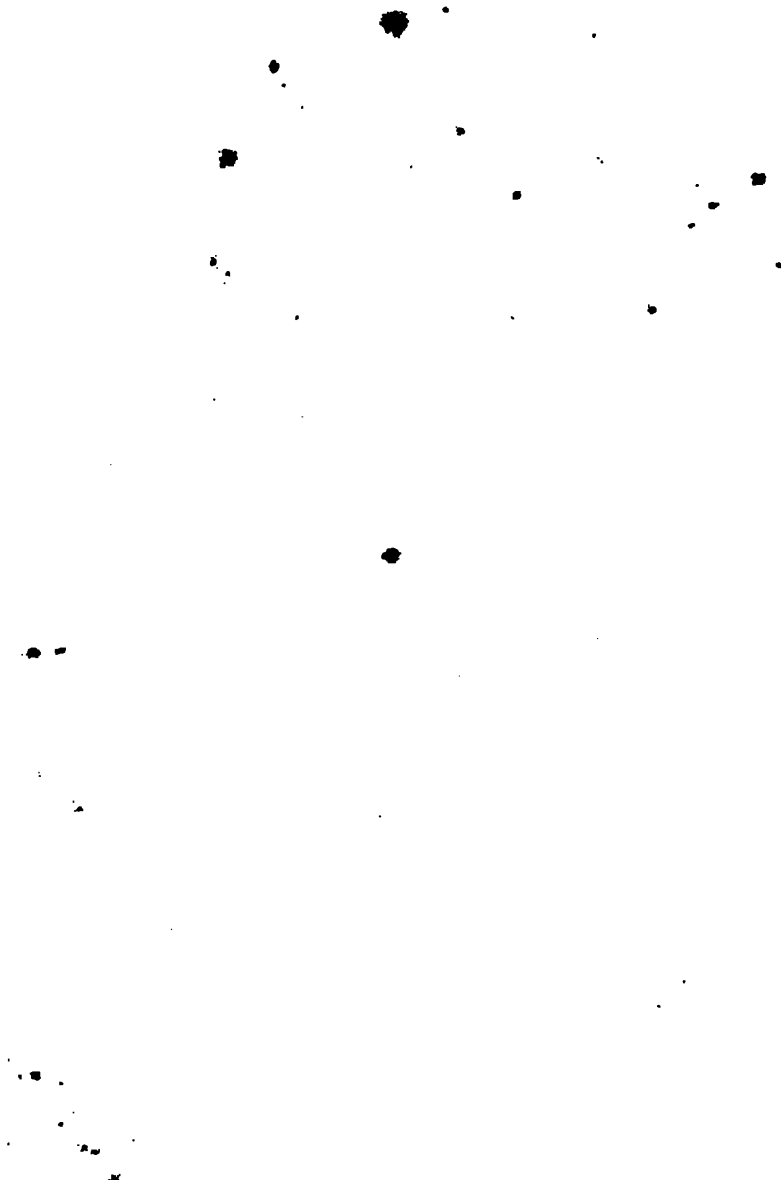
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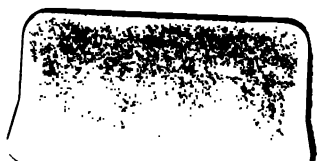
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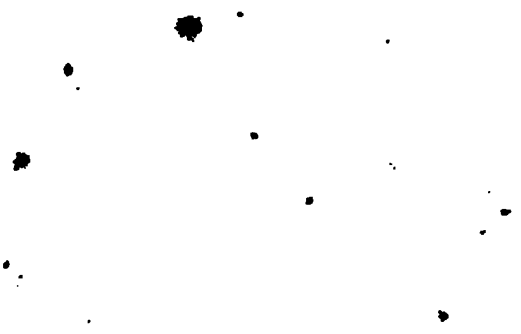
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THE
GARDENER'S EVERY-DAY BOOK:

CONTAINING

PLAIN INSTRUCTIONS FOR
THE CULTIVATION OF ALL CLASSES OF FLOWERS, FRUITS,
AND VEGETABLES,

AND FOR THE

PRACTICAL MANAGEMENT OF EVERY DEPARTMENT
OF HORTICULTURE AND FLORICULTURE.

BY

GEORGE GLENNY, F.H.S.

Author of "The Properties of Flowers and Plants," "Gardening for Cottagers,"
"Glenny's Hand-Book to the Flower Garden and Greenhouse,"
"Hand-Book to the Fruit and Vegetable Garden,"
"Hand-Book of Practical Gardening," "Golden Rules for Gardening,"
"Glenny's Catechism of Gardening,"
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INTRODUCTION.

THE title of the present work indicates its object and its uses, comprehending, as it does, instructions for every operation required in a garden establishment at all periods of the year.

The Author's object was to produce a book which might be consulted for the best advice on all matters at all seasons, and in every department of Gardening, giving all the details necessary for the culture of those subjects which are sufficiently popular to require separate consideration, and generalizing where great numbers thrive under the same treatment.

The Calendar form is adopted because it is the most useful, and gives the required directions most readily. It is only necessary for those who live north and eastward of the London metropolis to remember that they are later, and those who reside south and westward, earlier; and, with these allowances, the book will be a safe guide for all parts of the United Kingdom.

The gardener must also consider that extreme frost or wet will stop all the out-of-door work for a season, and that when the weather breaks, or permits him to resume, he must take especial care to bring up the arrears, independently of whatever work may belong to the advanced period in the ordinary course of Gardening.

NOTICE.

PART II. of THE GARDENER'S EVERY DAY BOOK will be
published on the 1st of February, price Sixpence.

THE
GARDENER'S EVERY DAY BOOK.

JANUARY.

PLEASURE GROUND AND SHRUBBERY.

THE main features of all pleasure grounds are grass lawns or parks, gravel walks and roads, and ornamental planting. In many splendid establishments there is a great want of variety, and a sad lack of taste. But we shall suppose that pleasure grounds are what they ought to be—well laid out, and planted with a mixture of evergreens and deciduous trees and shrubs, including all the sorts of blooming subjects, various clumps of American plants, with only the width of an even verge between them and the path or drive; groups of well-selected ornamental timber, a belt of miscellaneous wood and varied foliage, harmonizing well with a pleasing landscape-like bit of scenery.

This month the lawn, if growing uneven, must be mown, bush-harrowed, and rolled previously. The borders and clumps should be forked and cleaned. It is getting late for planting; but, wherever you can see an improvement to be made, by turning out a common or an ill-grown tree or shrub, lose no time in doing so. Endeavour to hide any naked, straggling, deciduous shrub or tree with a good showy evergreen in the front

rank, which should be chiefly composed of evergreens.

American plants which show their bloom buds may be judiciously stripped of all their weak shoots, and of some strong ones; but better put up with an ugly limb until it has flowered than take off any with bloom buds. Rhododendrons, Azaleas, Arbutus, Andromedas, Kalmias, Laurustinus, Heaths, Daphnes, and Pyrus Japonica, make beautiful clumps, each to its own family, or mixed; but in going over these, knife in hand, many shoots that are useless or ugly on the plant will be found, which cut off or shorten, as the case may be, so that no bloom is removed. All the larger trees, whether timber or flowering, should, while there is no leaf, be pruned into a fair but not a formal shape, before they attain too large a size. Inward-growing branches that crowd the head may be removed altogether, and long ill-shaped limbs may be shortened if they have escaped notice till now. Laburnums, Lilacs, Almonds, Guelder Roses, Mountain Ash, Robinias, Acacias, Thorns, Horse-chestnuts, and other flowering trees, are best pruned in a young state,

and once fairly started of a good form, little need be done afterwards; but they will shoot an ugly branch now and then, and it is best detected when the leaves are gone; let the pruning now, therefore, be confined to the cutting away of useless and ugly branches, or so far shortening them as to remove the blemish.

Planting may still go on; and by going round the plantations you will see some perhaps too large for the place they occupy; others too small; change the places of these, and fill up and complete where there is a deficiency with the subject that you remove from the places they are not adapted for, and leave holes for new ones that you must procure; because, when you have done all you can do by removing, you will easily see what new shrubs you require, by opening the holes, making memorandums of the sort, height, and bulk of every one; you may then go to the nursery and procure them without having one more than you want, or making any kind of shift. Planting is simple enough; save all the fibre you can in taking up, cut off any damaged bit of root, and if in the removal a root is much damaged, reduce the shrub or tree above ground in proportion; put into the hole dug for the new plant some of the well-bruised earth that came out, until when the plant stands in it the collar of the root is rather higher than the surface, and while you hold it steady, let your assistant throw in the fine earth all round the fine roots, and when the hole is nearly full, put in a potful of water, and then the rest of the soil, not too hastily, for the water

should soak it all. If the wind be troublesome, drive three stakes in beyond the roots, and pointing to the tree, and tie the ends together to the stem of the tree, to prevent its shifting before the earth dries at all; tread in all the soil, which will drive the wet soil among all the fibres, and fix the tree nearly as firmly into the ground as if it had grown there for years: all the planting should by rights be finished this month if the weather permits.

Laying down Lawns.—This is one of the most simple, but most effective operations in out-door gardening. The soil is dug or trenched, then trodden down all over, then levelled. The turfs should be cut perfectly even, a foot wide, two inches thick, and a yard long, and these have merely to be laid close side by side, joining as close as they can join all over the space to be covered; it is then to be beaten hard with a flat turf-beater, and left until there is a good shower of rain to soften it, when a heavy roller may be run over it as often as the proper state of the turf will admit of it. Established lawns require mowing once a fortnight at the least in the growing season, and sometimes once a week.

Coniferae form an exception to the use of the knife; they make noble specimens, and the varieties are endless.

A *Pinetum* may be formed upon a small or large scale, and it may consist of a row of the *Pinus* family in single specimens at equal distances on each side of a well-formed road; or a wide space may be studded with the specimens growing in small round beds on

green turf, the choice of subjects may be regulated by their beauty, their size, and their price. These, once planted, want no more than their beds kept clear of weeds.

An Arboretum comprises a given number of hardy ornamental trees and shrubs, evergreen and deciduous. Upon a large scale the whole of the known species and varieties might be planted; but most people who attempt an arboretum exercise their taste in selecting only the most beautiful. The planting is done according to the fancy of the owner or the planter, in rows or groups of each family, or singly at certain distances, all over the space to be occupied.

If there be any ornamental water, keep the banks clear of noxious weeds, and endeavour to encourage Lilies and other water-plants, which will in time occupy exclusively the whole of the shallow portions. If the water be covered with duck-weed, keep a brace of swans on it, they will keep the surface clean.

Rockwork is adapted for Ferns and many Alpine plants, the common Daisy, Periwinkle, London Pride, Arabus albus, the small Campanulas, Jasmine, Ivy, the Saxifrages, Lily of the Valley. All the hardy bulbs will thrive if the work is built with proper receptacles. This month the decayed leaves, except the fern-leaves, should be removed, weeds taken away, stone-crop and moss placed on all the ledges that will hold them; seed also may be sown of Antirrhinum, Violets, Digitalis, Wallflowers, and those other hardy plants and flowers that will grow

in crevices of brick and stone; the seed should be all mixed together with half a barrow full of loam, so that by laying as much of the soil upon the tops and ledges, and anywhere else that it is wanted to thrive, the seed is in it, and has a far better chance than it could have any other way; the same applies to imitations of ruins, now a favourite mode of covering an icehouse, or hiding a blemish, or stopping out, a disagreeable scene, and often adopted purely for its ornament.

Gravel Walks must be kept clean, free from litter of any kind, and weeds especially. If these are too thick to pull out, hoe or rather pick up the gravel an inch or two deep; and by raking it carefully, the walk may be made to look like new after rolling.

Edgings of Turf must be cut clean; edgings of Box must be clipped square at top, and tolerably close down; edgings of Alyssum or Arabis may be planted; and for a broad, effective, close, handsome edging, there is nothing better; it blooms white as snow nearly as soon as the Snowdrop, and never fails to flower abundantly.

It is the fashion now to grow Portugal Laurel, Rhododendrons, and Arbutus as standards, and any or all of these a few feet from the main walks. Let a circle of three or four feet diameter be cut in the grass, and the tree be planted in the centre. Standard Roses are also favourites.

Trees and Shrubs in Flower.—Laurustinus, Pyracantha, Arbutus, Alaternus, Glastonbury Thorn, Pyrus Japonica, Mezereon Spurge Laurel.

THE FLOWER GARDEN.

Alpines, whether planted in rock-work or a dry raised border, should be kept very clean, and free from the intrusion of other plants to crowd them. These are for the most part dwarf plants, easily disturbed by frost and thaw; and like all other subjects whose roots are near the surface, they must be examined after a thaw, and the roots pressed firmly into the ground where they have been removed by the change.

Azaleas—of course we speak of the hardy kinds only—should be trimmed during the winter months, so that if not done before, it should be done now; that is, all the small spindly branches which grow inwards, and have no bloom on them, should be removed altogether close at the base; all shoots that grow out in a straggling form, if they have no bloom buds; but it would not be wise to cut off any shoot that has flower buds on it until after the flowers have decayed, which is the proper time for pruning, before the new growth is made. The winter trimming must be confined to the removal of useless shoots without promise of bloom, the buds of which show very distinctly.

Anemones require covering against frost, if autumn planted; but the beds destined for planting next month must have all the top spit taken out to be turned over and sweetened, and, if necessary, mixed with sufficient dressing to make it light and rich. Ordinary garden mould that will grow cabbages will only require about one-fourth

in quantity of rotten cow-dung, or decomposed dung from a melon or cucumber bed.

Annuals, Hardy.—These may be sown towards the end of the month, if the ground be in good working order, and the weather open. In borders it is usual to sow patches, and a good deal of seed is wasted, because there is scarcely any that should have more than five or six plants, whereas, in nine cases of every ten, it is sown as thick as small salad. The smallest imaginable pinch of half-a-dozen grains would be sufficient; but as even with careful sowing a score small seeds will drop, it must be so, and when up strong enough all but half-a-dozen should be removed. Larger subjects may be sown in pots, or pans, or boxes, thick, and when grown sufficiently, planted out, half-a-dozen in a patch. In beds designed for annuals, they are scattered thinly but evenly over the surface, and thinned if necessary afterwards. Zinnias, China Asters, Stocks, and such like, that will bear planting out, may be sown on a warm border, where they can be covered against frosts, for they are not hardy enough to stand much; but Sweet Peas, Lupins of various kinds, and other hardy subjects, may be sown anywhere.

Auriculas in the open air need only be kept as dry as possible; but as they must take their chance in the open ground, no one attempts to grow the show varieties so; and when in pots, they will

not thrive in the open air, for the frost would get through the sides of the pots to the tender fibres, and check them for a long period, if not kill them altogether.

Berberries.—The ornamental kinds, many of which are also called Mahonia, belong more especially to the shrubbery; but as many have the dwarf kinds in the garden for the sake of their flowers, we need merely observe that the dead leaves should be removed.

Borders.—The earth in the beds and borders cannot be too frequently stirred, if it be done without damaging the roots of the various plants: it greatly checks the mischief done by frost, it admits air to the roots, it keeps the surface clear of weeds, and always makes the place neat; but it must be done with care, and a knowledge of bulbs and herbaceous plants that are underground, otherwise the growing tops just beneath the surface might be cut off or bruised, and the bloom for the next season altogether destroyed. To prevent this, labels should always mark the spots under which everything sleeps, and this can only be done when they are growing.

Campanelles, a sort of small Narcissus, are early visitors, but do not show yet, if planted in November. If any have been left out of ground till now, they must be planted immediately as the only chance of saving them.

Carnations in beds in the open ground would be safer with litter over them at night than without it; but if the ground be well drained, and the bed a few inches above the paths, they may go

through our ordinary winters without protection. Many hoop the beds over, and cover with garden mats, which secures the plants from damage, but they must be exposed to all weathers except excess of wet and frost.

Chrysanthemums.—These have long done their duty, and ought to be now in the open ground, cut down; but as there may be still some in pots scarcely done blooming, or recently brought from the houses or conservatory, cut them down, and turn them out with their balls of earth about them into the open ground, being however prepared with good labels not likely to perish, so that their names may be preserved. If increase is desired, take off the young shoots at the bottom and plant them under a handglass, in a dry warm border, where they can be covered against extreme frost, but it is quite as well to leave all this for spring.

Clematis.—The common scented one will grow wild and strong, put it where we may, and it is difficult to kill it; but *C. Azurea Grandiflora* and its varieties, and *C. Sibaldii* are more helpless; they must be carefully nailed against the wall or tied to trellis-work; (but as they are both very delicate on their stems, the former is the better.) They should now be looked to, because every joint should be secured, that the wind may not disturb them. Again, the closer they are to the wall the less they are affected by frost.

Crocuses are making their appearance if they have been undisturbed two seasons, and, like all other bulbs, are the better for stirring the surface of the ground and

gently pressing it close to their stems.

Cyclamens.—The hardy kinds are apt to suffer from excess of wet in the open ground. Where they are grown in beds, by all means protect them by hoops and covering of some kind; above all things, keep the earth stirred between them, and allow no weeds to grow.

Dahlias.—Examine all the tubers. If any of them indicate decay by shrivelling, or rottenness by moisture, remove every vestige of mischief with a sharp knife, and pot them immediately. Larger tubers may lose a good deal of their bulk for potting, for a tuber that if whole would require a ten-inch pot, may be cut so much closer, that it may be got into a six-inch one without injury to the crown, whence all the best shoots emanate. Any very scarce sorts that we may be desirous of propagating much, may also be potted and set to work, but without too much heat at first starting. The very constitution of first-rate varieties has been changed by propagating in too much heat; and when they have been let out in dry roots, they were rarely good for much the first season. There is a mistake in attributing it to excessive propagation; for the last cuttings taken off after the tuber has been turned out of the stove or hot-bed into the greenhouse, will make better plants than the strong cuttings that have been shooting in a temperature of eighty or ninety. It is the forced rapid growth of the shoots that does the mischief, and not the quantity taken from the tuber.

Delphiniums, now forming a

very interesting family of hardy perennials, and a splendid ornament in the wider borders, should have the earth forked up round them: and this caution applies to all the hardy spreading herbaceous perennials.

Fuchsias in the open ground must be covered with litter, and if standards, a hay-band round their stems the whole length is desirable, although they would stand without it in warm situations; where they are very choice, the heads may be pruned in like that of a rose, and thus reduced in size, they might be matted with advantage, because these are destroyed if they die down to the ground, whereas the shrubby ones, if they perish to the surface, will break up again as strongly as ever.

Gladiolus.—These have of late years become highly popular; and although they should have been planted in November, may still be procured in good order, and, if not provided in the proper season, and properly disposed of, should be now planted. They are most effective in groups of the same colour and kind; for they flower at different seasons, are of all colours, and half-a-dozen in a group in flower together make a fine appearance in a border. If they are already in the ground they require nothing till above ground, when the earth may be stirred around them to give air to the roots.

Hepaticas.—These much-neglected but beautiful harbingers of spring are worth some trouble. They are by no means tender, but they must not be choked by any other plants. They want light and air, and the earth well forked

about them. Herbaceous plants generally—and there are hundreds that require similar treatment—should be cleared of their last year's growth and decayed leaves; the earth should be well stirred about them as often as the rain runs it close on the surface. They should all be removed with care to where they are to bloom.

Hollyhocks should be deprived of their offsets, and left to one good strong heart. This may have been done in autumn, but in mild winters they continue to throw out shoots, and every one of these will make plants, if struck like Dahlias, and if they can be taken off with a bit of root, they are plants already, and may be planted out as such. The old ones should be mulched with a spadeful of rotten dung, and the earth about them well stirred, that the mulching may be washed in by the rain.

Honeysuckles.—These, where they are climbing, must be well fastened. All the new but ripened wood should be well nailed or tied in, and all the weakly shoots removed. Where they are treated as shrubs, they should have the weakly shoots removed, and also those branches which grow inward and confuse the head; and the branches which will occasionally, in their efforts to climb, grow out of the range of the head, must be shortened back. It is only by constantly attending to this that we can control them, and the consequence of stopping them is a profuse bloom all over the surface.

Hyacinths, many of which are above ground, require but little attention until the leaves open, when they would of course take

in all the rain, and if frost succeeded, the solid ice would damage them. It is therefore as desirable to protect from wet as from frost in beds: this is done best with hoops and mats; but when planted in the borders singly or in small patches, it is managed by covering the patches or single roots with flower pots with a cork in the hole, or a bit of tile or slate over it.

Jasmines of various kinds will climb well, if constantly fastened as they grow. The white one is a common climber, well known and a good deal encouraged in some localities; and it requires vigilance in repairing old fastenings and making new ones. *Jasminum nudiflorum* is the best of the hardy yellow ones, and makes long straight shoots, which are in February and March covered with its golden blossoms the whole length. This does not grow so bushy as the white, and consequently does not require such substantial fastenings. It is good on any wall, but it can be grown in pots and stopped to make a bush, which is in spring literally all flowers.

Narcissus.—Of these there are many kinds, and disposed of in many ways. When in borders they are planted singly, or at most in groups of three, and they ought to be of the same kind. Cover with flower pots if they are above ground, but no trouble need be taken till they are up.

Pansies in the borders have perhaps grown straggling. You may either peg down the long stems, and cover them with the soil so that only the ends are out, and leave them to root while the

centre will throw up new growth, or improve its present appearance: or you may cut back all the long shoots, and leave only the centre of the plant, which in most cases will make fresh growth and healthy blooms; but the earth round them should be forked, and a little mulching or top-dressing of dung should be given to each. The beds of young plants, whether seedlings or struck cuttings, planted out some time ago, should be topped, dressed all over with perfectly rotten cow-dung or that of a decayed hot-bed; but before this dressing is put on, loosen the soil all over the bed.

Phloxes require to be annually parted, or they will spread too much. They may go a second year if not very large; but, presuming them to have been parted and placed in store beds, they may with care still be removed to the places where they are to flower. Their treatment generally must be as other herbaceous perennials.

Picotees.—The proper treatment of this favourite is every way like that of the Carnation: there is no difference in the habit, nor the hardness, nor its dislike to excess of any kind, but of wet more especially. Like the Carnation, it is grown more in pots under protection than in the open ground; but it is more from the fear of vermin, which can be prevented in pots, than for any great apprehension of the weather.

Pinks.—These are now in their flowering beds, or at least ought to be, and if not, the sooner they are the better; but they will not bloom so strong as if they had been planted out in July and

August. It is however a common practice to plant them twice as thickly as they ought to be planted in store beds, to be finally planted out at some future time. In that case, let plants remain at the proper flowering distances, and take up all the others to make new beds. You will then at least have one bed good; these should be treated in the same way as Pansies: mulch them with a good half inch of decayed manure after the soil has been stirred.

Polyanthus and Primroses.—Slugs are the devouring enemies of these beautiful spring flowers. The coarser kinds will grow anywhere; it is more difficult to kill them than it is to keep the better sorts. They must during the whole year be watched, and on the least sign of mutilation in their leaves, they must be examined throughout for the detection of the enemy, which will be found snugly ensconced under the lower leaves, and perhaps buried in the soil. No vermin can bear being disturbed, therefore often stirring the earth is a necessary operation, and an occasional watering with lime water is beneficial. Pick off the dead leaves.

Ranunculuses.—The autumn planted must be protected against the frost by hoops and matting as soon as they come up, and the earth must be stirred and bruised, so as to press it close to their stems; for they break the soil in coming through, and often expose their tubers: by bruising these lumps, stirring the soil, and pressing it close to their stems, this is prevented, and they are greatly strengthened. There is no occasion to keep off the

rains, even the heavy ones; but as it runs the earth together again, and forms a sort of crust or close surface that keeps out the air, and would, if left, freeze solid about their tubers, the surface must be stirred again, to make it loose; and the frost does not penetrate half so far into loose earth as it does into solid. Light rains do not, however, have so much effect. The beds intended for show flowers must be dug out eighteen inches deep, and the soil removed to sweeten by frequent turning; or if fresh soil is to be used, it should be good fresh loam from rotted turfs, cut as if intended for laying down as a lawn; this being nearly half vegetable mould from the rotted grass and fibre, and stacked up for the purpose of rotting. This stuff should be chopped down thinly, and every living thing picked out, because turfs are often swarming with bots, grubs, and wireworm, either of which is fatal to whatever it attacks. As this kind of soil is the most valuable of all soils to the florist, some should be laid up every year; and it is rarely quite rotten under two years: during the latter year it is chopped about and turned over repeatedly, and the greatest pains taken to kill every living thing except the common ground-worms. This, therefore, should undergo the rubbing through a coarse sieve that would let a filbert-nut escape—for earth may be too fine—and during this sifting, use the opportunity of detecting every grub or wireworm that could be left in it; and if such is to be used, it must be prepared this month. But if the ordinary garden soil is to be used,

it must be turned over three or four times with one-fourth its bulk of thoroughly decomposed cow-dung. Towards the end of the month, three or four inches' thickness of cow-dung should be put at the bottom of the bed, and the compost put on it, till the bed is filled about four inches higher than the path, and there left till planting-time. If the rotted turf soil is to be used, it needs no mixture. Of course, all the surplus soil must be removed.

Roses.—These form the most splendid ornament in the British gardens. Tree Roses require examination—first, to detect and destroy all suckers and growths of the stock: and, secondly, to see that the stakes to which they are fastened are firm in the ground, and strong enough in themselves, and the ties sound. A portion of the pruning may be done; that is, the removal of all the shoots that grow inwards and confuse the head, and also all those which are weakly and useless; but it is too early to shorten the branches altogether, because in hard frosts they frequently die back two or three joints. The most, therefore, that should be done towards ultimate pruning is to cut back the longest to within three or four joints of the place they are to be left. Bushes should be treated in the same way, that is, all the weak shoots, and all the branches that cross each other and grow inwards, so that the inside should be open and free to light and air.

Snowdrops, like all other bulbs, should have the earth stirred about them.

Tulips, Early.—These are springing through the ground, and

breaking the surface into lumps; these lumps should be bruised by hand, and the crumbs pressed close to their spikes.

Tulips, Late, require the same treatment; but as they are in beds, and planted six inches apart, the whole surface must be stirred. If there be any vacancies in the best bed, when the great majority are up, remove the ground carefully down to the root, and see the cause: sometimes the spur has been turned on one side by a stone or a lump, and the appearance of the spike above ground proportionably delayed; sometimes the root will show a damage, which must be removed with a sharp knife; sometimes the outer leaf has decayed at the top, and fastened, as it were, so that the others cannot pass it, nor can it advance. In this case, the outer leaf must be removed as far as it is decayed: but it may be found that the bulb has altogether died; it is a satisfaction to know the worst. But the stirring of the surface two or three inches deep, and the bruising of the lumps, so as to set the soil close to the stems, must be done before the leaves open; for if delayed till afterwards, the earth will get into the heart, and do mischief. They should then be carefully covered against frost and also wet; for the tulip, if properly planted, requires none.

Violets must be kept clear of weeds, but they generally cover the ground so as to discourage all but the strongest. Any patches covered with hand-glasses will give flowers earlier, and without interruption by frost.

Wallflowers, of the ordinary

kind, may still be moved with care, and want no protection; but the fine double sorts must be protected somehow. If in beds, hoops and mats will do; but in the open borders, hand-glasses, or baskets made like beehives, but not so heavy, will be found very effective; and the superiority of the flower over the single ones make it worth the trouble for a few in conspicuous places.

GENERAL OBSERVATIONS.

The Flower Garden should be kept like a lady's drawing-room: the hoe cannot pass too often over the surface, for it cannot be too often disturbed, but it must be always left clean. Whatever litter is occasioned must be raked off; the paths must be kept clear of weeds; the edgings well kept up, whether, box, or thrift, or arabus, or any other plant. There must be no vacancies. For the management of the Lawn portion of small gardens, and the Shrubs occasionally introduced, we refer to the department of "Lawn and Shrubbery;" and for the management of that part of the stock which is kept in frames, pots, and greenhouses in winter, the directions for that department must be consulted. We have only mentioned in the operations for the month those subjects which require something to be done; but as the months advance, everything that wants attention will be noticed.

Flowers in Bloom.—Winter Aconite, Alyssum, Crocuses, Hellebore, or Christmas Rose, Navelwort, Polyanthus, Primrose, Periwinkle, Snowdrops, Wallflowers.

THE VEGETABLE GARDEN.

Artichokes, though not so popular as they have been, are still grown for many private families. If the old plants have not been cut down, clear them away at once near to the ground, and put some earth over the crowns to preserve them from the frost, but it should have been done earlier.

Artichoke, Jerusalem.—These are generally continued in the ground, and dug up as they are wanted, but it is better to take them up when the leaves turn yellow, replant all the small ones, and the large ones preserve like potatoes. These should be planted six inches deep, a foot apart in the row, and three feet from row to row, unless they are wanted to hide any ugly object, for they will grow ten feet high.

Asparagus.—This, during the winter months, has to be cut down and earthed up; that is, dressed with rotten dung, and the earth, which has during the summer been washed down into the alleys, must be thrown upon the surface to the thickness of six inches above the crown of the plants, and the face left a little rounding to throw off the rains.

Beans, Broad.—As these are sown from November to February and March with equal propriety, sow this month to succeed any already in the ground, or for a first crop; put them in drills three inches deep, about four or six inches apart, and the drills two to three feet asunder, and if you have any beans already up, draw some earth to the stems.

Brocoli.—Clean the earth between the plants, stirring the surface and leaving it loose. If any are showing heads, they may be thrown down with their tops away from the sun. This is best done by making a sort of trench on the north or east side of the row, and bending them down by treading them over, throwing the loose earth upon their stems. It is frequently preserved through the hardest winter by these means.

Brussels Sprouts can only be kept clean, and their decaying leaves removed; that is, if the winter has spared them.

Cabbage.—Although the crops of Cabbage may have been provided and planted out the last two months, you can never do wrong, if you have plants in the seed-bed, by planting them out, even on ground wanted soon for other purposes; they will grow large enough to be eaten as greens, and for this purpose they may be planted six inches apart, in rows only a foot from each other, and pulled as soon as they are large enough to eat. The Sprouts of Cabbages are now of great service, often giving us a dish of greens when they are scarce.

Cardoons.—These are only kept earthed up like Celery to blanch the stems, which are the only parts eaten.

Carrots.—Sow a few this month if the weather be open. Choose a border that is naturally warm, cover the seed well, and use a little litter of some kind to throw over, and protect it at night, for

fear of frost, and do not uncover too soon, and not at all until a permanent thaw takes place.

Cauliflower.—Those under hand-glasses must have air on mild days, but if there be a cold wind, only tilt them on the opposite point to the weather. Those in frames under lights must be often examined, the dead leaves pulled off, and the surface occasionally stirred. They must also be kept dry; they had better suffer for want of water, than have too much. It is also necessary to keep them clear from weeds, to give them abundance of air, and to cover them from frost, and keep them closely shut down till it disappears altogether.

Celery.—The only care this requires is to keep it well earthed up, and as this must be done on dry days, the opportunities are sometimes "few and far between." In doing this, take some pains to bruise the soil into small crumbs, and to close the heart, that the earth may not get into it; and it is by no means lost trouble to cover with litter, that a severe frost may not spoil it, as it would in a single night if unprotected.

Chives.—This is a substitute for young onions, and the Kitchen Garden should never be without a few. They will bear moving and parting at any period of the autumn or winter in favourable weather; it is almost as simple as parting a root of grass; where you have the crop established, you need only keep it clean.

Corn Salad.—This useful addition to salads remains where it is sown, and now wants merely to be kept clear of weeds. A winter salad should never be sent in

without a few leaves of it, and it will always yield a supply until the spring salads come in.

Coleworts, or Collards, are a coarse loose sort of cabbage, very hardy, and cultivated to send in bunches to the London markets, or to be eaten as greens when there are no young cabbages; but, with the exception of one or two sorts not worth the trouble of growing, young cabbage plants have been found superior to the coarse sorts, and those alone may be called more hardy. Many plant young cabbages very thickly, instead of at the proper distance for hearting, and as they advance, thin them out to the proper distances, using those which are pulled for Coleworts: those which have been so planted should be carefully drawn, and those left for cabbaging should have earth drawn to their stems. There is but one sort of Colewort that is worth cultivating, it is called the Rosette Colewort, and supplied largely to the London markets.

Dandelion, though a weed in general estimation, should be rather encouraged in some remote part of the garden, as a great acquisition to salads, especially when blanched by tying up, like Endive; or by covering close; a flower-pot, with the hole stopped, should be put over the strong plants.

Endive.—As this is required, blanch it by tying round on a dry day, or by covering it with a flower-pot, or by laying a flat tile on it, and it must be protected from frost by litter, otherwise it will rot and become useless.

Eschalots may still be planted. Most people plant the small offsets, and use the full-sized roots for

general purposes; but where the size is no object, it is more profitable to retain the old root for planting, and remove all the increase for use, because the former are more prolific, and the latter are the best in flavour. For market it is otherwise; the small must be planted, and the full-sized bulbs used for supply.

Garlick is much the same as to character, and requires similar treatment.

Horseradish may be planted according to the following plan: Let the ground be trenched eighteen inches deep, and on the bottom of the trench lay three inches of very rotten dung, upon this lay a row of pieces of Horseradish, not necessarily crowns, but pieces of an inch or an inch-and-a-half long; take especial care that the earth thrown into the trench is well bruised and crumbled, otherwise the shoots will not come up straight; fill up the first trench by making another, and do the same to every row of sets. In due season these pieces or sets will send up shoots perfectly straight.

Kale, Scotch, or Borecole.—The tops of these are excellent for the table; after being frozen, and after they are topped, the side shoots are equally good, perhaps they are better. They only require now to be kept clear from weeds, the earth stirred between them, and the yellow leaves, if any, removed.

Kale, Sea, grown out-of-doors, not for the purpose of forcing the plants, require earthing up, so as to be secured a good eight-inch thickness above the crown by digging alleys between them, and throwing the earth on the top.

This protects them from frost, and gives them ample room to grow six or eight inches well blanched; when the plant breaks the soil at top, they are cut. These are better earthed up in November, but "better late than never." Forcing is treated of in another part of the work.

Lettuces.—The hardy kinds may be sown on a warm border, to be covered at night with straw or litter of some kind; and unless the winter be very severe, they will survive and be useful.

Onions.—The autumn sown crops must be chiefly thinned by drawing, but they must be kept clear of weeds; some may be sown on a warm border, but should be regularly covered with litter at night.

Potato Onions may be planted, if not already in the ground, in rows eighteen inches apart, and six inches from plant to plant in the row; but it is more curious than useful, for the bulbs are very strong: they are earthed up from time to time like potatoes.

Parsley, one of the most useful herbs in the garden, should be thinned out where it is too thick, and those plants which have coarse leaves should be first removed. It is a very hardy plant, and there will be no harm in sowing some where it is likely to be wanted.

Parsneps in store should be examined, and if they have been pitted, they should be protected from wet. They are best preserved under cover, in layers of dry sand or soil, and covered from frost and heat. Many, however, keep them in the ground as late as this, and if so, the sooner they are dug up the better.

Peas.—Those who begun sowing peas in November have, most likely, some up, and it must be borne in mind that frost does not penetrate loose soil so deeply nor so easily as it does the solid undisturbed earth; therefore, as soon as peas are well up, the earth must be stirred, and bruised, and drawn to their stems, nearly as high as the tops on the sunny side, and a hill or bank formed on the other, to protect them from the north-east winds. At the same time, however dwarf the peas are in habit, they should be protected with the sticks which are ultimately to support them, for these are a great protection. The sowing of peas may be regulated according to the probable wants of a family, or the necessary supply. Some sow their succession crops as soon as the sowing immediately before comes up, others sow every three weeks all through the season, and that a long one, for they continue sowing until the end of July for the chance of late crops; under any circumstances, the present month, if open, is very proper for either a first or succession crop. Dwarf peas may be sown in rows two feet apart, but taller ones must be two-and-a-half to three feet; and the tallest, which run six or seven feet high, must be four feet apart.

Potatoes.—As we advocate early, and even autumn planting, before the tubers begin to grow, that they may make all their growth in the ground, while it must be admitted, that if the seed can be kept from spearing, they will do well several months later, we merely recommend the present month for one planting; but we direct whole sets to be used, not

large ones, but about the size of a hen's egg; and there are so many ways of planting, that it is necessary to point out the principal, and our reason for preferring one more than another. In large concerns, a plough makes a furrow, which is supplied with sets by following, and dropping the sets in at given distances; the plough, in making the second furrow, fills up the first, and in this way whole fields are planted. There is no great objection to this. Another plan is, after the ground is prepared, to make holes with a dibber and drop in the sets. The depth, four to six inches, is indicated by a mark on the dibber: we do object to this, because the dibber, by pressure, makes a hard hole; the potato may stick half-way instead of going to the bottom, and, at any rate, is not so free to grow as if the earth was all loose round it. We recommend drills to be drawn six inches deep, and the sets to be dropped in about nine inches to a foot apart, and these drills to be two feet for dwarf or small-growing sorts, and two feet six inches for larger; the earth drawn out of the trench or drill being returned, covers the sets, which want no more trouble nor attention till the potatoes are up.

Radishes.—Continue to cover at night all those previously sown, and sow more if wanted; but every opportunity should be taken to remove the litter when there is no frost nor chilling cold winds; and when weeds appear, they must be removed, for they will grow faster than the radishes. Many sow onions and radishes together, but we are no friends to mixed crops; still there are no real objec-

tions to be raised to mere matters of taste.

Rhubarb.—By covering up the stools of Rhubarb with straw or litter it may be considerably forwarded, but before this, the ground ought to be dug, cleaned, and dressed between them. There is no objection, however, to putting a good coat of dung all over and round each stool, and using dung for covering.

*Savoy*s.—These are very useful greens in winter, and it is desirable to keep the stumps in the ground after the savoy's are cut for use, for in particular seasons the sprouts are valuable. Frosts, that will kill all other greens, will leave Savoy Sprouts and Scotch Kale untouched.

Spinach.—The crop of winter Spinach should be hoed, not only to clear it of weeds, but to loosen the earth round the plants; while growing, they ought not to be more than six inches apart. This crop is capable of supplying the table with dish after dish by picking only the full-grown leaves from time to time. Sow a little of the smooth or round-leaved Spinach; the first of the spring crops to be succeeded by other crops each month, once or twice, according to the demand.

Turnips only require to be kept clean; but as the crop may be nearly off, they may all be pulled; the best to be stored, the worst to be planted close in some useless spot, to throw up turnip-tops. A small sowing may be made at the end of the month; but as it would be a doubtful experiment, it should not be a full crop.

Watercress.—These should be kept clean, and properly weeded,

and they might as well be covered a foot with water now and then, it would preserve them from frost.

GENERAL REMARKS.

In this month it is frequently cold enough to suspend all operations; the ground, hard frozen, defying the hoe, spade, and rake, and driving us from the open ground to some of the other departments. We may indeed wheel dung from the heap to the various quarters that require dressing, and we ought to take advantage of a frost for such work, inasmuch as the barrow goes over the ground lighter, and we can tread anywhere without injuring the soil. If the wet be excessive, we must keep off the ground altogether, for nothing does more harm than trampling the ground while soft and full of water. When we are fairly driven from out-of-door work, we ought to employ ourselves in threshing or picking out various seeds that we have saved, for it is better for being preserved in the pod. It must be borne in mind, that whatever is delayed by frost or wet must be done as soon as possible afterwards.

The Vegetables in Season in the Gardens or in Store.—Beet-root, Brocoli, Cabbage, Cardoons, Carrots, Celery, Coleworts, or Collards, Endive, Eschalots, Garlic, Horseradish, Jerusalem Artichokes, Kale, Leeks, Onions, Parsley, Parsnips, Potatoes, Rocambole, Sage, Salsafy, Savoy's, Scorzoneria, Skirret-root, Spinach, Cabbage sprouts, Thyme, Turnips, Water and Garden-cress, Winter Savory, and, where they are cared for, Mushrooms.

THE ORCHARD AND FRUIT GARDEN.

THE work of Pruning may be commenced this month; and while the Wall-fruit Trees demand attention, it should be remembered that Standards may be improved greatly by equal care, although they are generally left to themselves, rarely being visited from the time of gathering the crop until the next year's fruit is ready to pluck. We have frequently regretted this neglect, because it leads to uncertain and irregular crops—very heavy one year, very light, or perhaps none at all, the next. There are certain rules, founded on known principles, that every gardener ought to observe; first, when the head of a fruit-tree is crowded with crossing branches and a forest of weak shoots, it shuts out sun and air from the interior, which never bears; and the growth of such useless wood takes from the fruit that nourishment which should swell it: secondly, that thinning of the fruit on any trees causes the remainder to be finer.

Almonds.—The sweet kind grow and ripen well enough if all the weak shoots are cut away, and the inner branches are thinned out; and this is a good time of year to do it.

Apples feel the benefit of this kind of pruning as much as any fruit that we grow on standards. Why do finer fruit come on espaliers than on standards? because the same aged tree has not half the number of branches to support, nor half so much fruit to nourish. Espalier apples must be treated like pears (which see).

Apricots.—Although the pruning of wall-fruit trees might be delayed a month or two without any disadvantage, where there is much to do, there is nothing like beginning in time; therefore set about it this month, for as the apricot is the earliest, so it should be first done. To prune and train these properly, the operator must understand what he does it for, and what he wants. First, then, we want the branches to cover the wall at regular distances from each other; and all the branches that cannot be nailed in without crowding, must be taken away. Secondly, as the fruit comes principally on the ripened branches of last year's growth, we must save as many of the best of these as we can nail in without being too close to others. Thirdly, as young one year's wood is better than older, we may always cut away old wood to make room for it. Our first business, therefore, is to cut away all those shoots that grow straight out from the wall, unless they come at the bare part of a wall and would be serviceable; in which case "gentle violence" may be used to bend them down, and then fasten them. As all the last summer's shoots were nailed temporarily to the wall while growing, our next business is to unnailed them all, and some of the old wood also, if necessary, that they may be laid in properly, and at proper distances, sufficient to make room for the fruit, selecting the best and strongest, whenever there is more than is wanted. But as these shoots come mostly from

the wood that bore fruit last year, and often three or four come on one shoot, we have to consider which we have the best room for, and how many of them we can lay in; the rest must be cut away. But we must think it no trouble to unmail even large branches, if, by shifting them a little higher or lower, we can make better room for the young bearing wood; for very small branches or shoots of the last year's growth will bear fruit. Nevertheless, we must not be too greedy; one or two of the best shoots on each of the last year's bearing branches will be quite sufficient, excepting it be to fill bare places on the wall; and, generally speaking, the shoot nearest the lower end of the branch is the best, because it secures a provision of young wood hereafter. Some have the branches horizontally, some fan fashion; and the fan is the best for those who have to make the best use of their time. Some few fruit come on the short spurs that grow on the old wood; so that in pruning these spurs must not be touched. Use the old-fashioned shred of woollen and cast-iron nails, and take care that the branch is not braced too tightly.

Berberis is an ornamental shrub, and generally grows best in its own wild way; but there is no harm in thinning out the middle a little, and it is as well to caution the operator that the wounds made by their thorns are very painful, for they are poisonous.

Cherries, as standards, want the useless branches in the centre of the head cut away, to give light and air to the rest. On walls, the training is like the apricot, only

nearly all the branches may be laid in, and the wall may be filled tolerably close.

Chestnuts.—These seldom ripen well in this country, but thinning out the head would promote earlier growth, and give the nuts a better chance.

Currants and Gooseberries.—Begin pruning. All the lateral shoots must be cut off nearly close, and the main branches be left perfect skeletons of trees: the bare looking branches, however, need not be shortened; and if they are not within a foot of each other, a side shoot of one of them may be left to fill out a little; otherwise all laterals are better out of the way.

Filberts.—These may be kept down like bushes, or allowed to grow large shrubs, or trained as standards. All we have to do in either case is to thin out the inner branches, and let in plenty of light and air.

Figs are rarely grown other than as wall-fruit, and on a south or south-west aspect they will ripen their fruit most seasons. We must not use the knife much, and when we do, it must be to take branches completely away. There must be no shortening of the shoots: the more wood we can lay into the wall the better, provided we have room for the fruit; and it is necessary to cover against frost, for the young fruit shows before the old has been gathered, and the winter would, if unprotected, destroy them. Of course, the weakest shoots are to be removed, if any.

Medlars only want thinning out, otherwise the sun could never reach further than the surface, for they grow very dense.

Mulberries.—If the trees be young, keep them from getting too thickly wooded; for unless the sun can reach the fruit, it cannot properly ripen. Those who are partial to the mulberry should grow one tree on the wall, laying in the branches as close as it can conveniently be done, and allowing all the foreright shoots, which are those that grow outwards, to remain, except the longest, which should be cut back or away altogether. The mulberry must not be pruned like peaches and apricots, and the shoots nailed close, but the main branches only must be fastened; the principal fruit will be on the shoots that grow outwards.

Nectarines and Peaches have so much the habit of apricots, that a reference to the treatment for that fruit will be sufficient. The peach, perhaps, grows more vigorously and makes longer shoots; but all the rules for one will do for the other. If the bloom-buds are very plentiful low down a shoot, it may be shortened with advantage; but as they are mostly situated nearer to and quite up to the top, every bud that is cut off is a loss; for, however crowded the fruit may be, we can always reduce the number, that the tree may not have too much to do.

Planting.—This month is quite as late as Planting ought to be deferred; therefore prepare at once to do it all out of hand. If you have a good loamy soil, plant your trees without dung: nothing is easier than the supply of nourishment to fruit-trees when necessary; and too vigorous a growth at the onset is by no means desirable. Attend to a few good

sound rules. *First:* Save all the fibres you can in taking up the trees. *Second:* Cut off all the damaged ends of the root. *Third:* Reduce the head of the tree in proportion to the damage and loss the root has sustained. *Fourth:* Never plant the trees deeper than the collar of the root. *Fifth:* Secure the tree from the slightest disturbance from wind or otherwise, by fastening to the wall or to stakes. Make the hole deeper and larger than required to admit the root, and throw the loosened soil back in part, so that the tree will stand in soft ground. Set the tree in the hole higher than it is to be, because it will be trodden deeper in, and sink, and for this you must allow; the surface ought to just cover the collar, and no more. If you are planting new wall-fruit trees, choose one year old from the working, or at most two; cut back all the branches to three eyes, and of course three shoots will come for each one removed, so that the wall will be rapidly furnished. Some buy trained trees, and want fruit directly. In this case, the roots must not lose a fibre, and must not be exposed an hour to the air. Besides this, we should cut back every alternate branch to three eyes, and have the others only shortened back to well-ripened wood. The only difference observed in planting standard fruit-trees is, that they must be fastened to stakes instead of the wall; the holes to be made twenty or thirty feet apart in the open ground for standards, and say fifteen to twenty for the wall. The stem should be six or eight inches from the wall at the crown of the

root, and slope to the wall. With regard to supporting the standards, three stakes, a foot off, on three sides, and to cross at the top where the stem is to be tied, will be found the most firm. Raspberry canes, Gooseberry and Currant bushes, and Filberts must be planted by the same rules and with the same care. Planting espaliers is similar to planting wall-trees; the only difference between them is, that the one is nailed to a wall, and the other tied to a trellis, but pruned and trained flat, and not allowed to grow outwards.

Pears.—The training of Pear-trees on a wall or trellis is much the same as any other; but as the fruit is borne on short spurs out of the old wood, the first care is to get healthy growth to cover the wall at proper distances, and, in the summer months, to cut back all the young wood that is not wanted close to the heel, and to encourage the branches that are to form the tree. Fan-shape is the best for both wall and trellis, and trees should be cut back until there are a sufficient number of branches to form a good fan; and they should be six inches asunder at two feet from the trunk, and this would of course increase to a great distance at the ends of long branches; but we must select the first good strong shoot beyond the two feet, to form a branch between the two; and when we get two feet further on, we may select another, so that by these means we should fill the wall at proper distances as far as the tree extended. Knowing, then, at planting, or at any time after planting, what is re-

quired, our pruning this month must be in accordance. It is only when the main branches are worn out, and cease to bear spurs, that we must seek for young wood to supply their places.

Plums, like apricots, bear chiefly on the young wood, and must be pruned like them, when on a wall or trellis; but standards should be thinned out to give light and air, and throw the additional strength into the bearing branches; and

Quinces require no other management.

Raspberries.—Whatever number of canes may have grown up by the side of the old stools, they must be removed, and not more than the three strongest left, and the old plant cut off. The superfluous canes may be taken off with their roots, to form new plants, or be merely cut down: and those which are left must be cut down to four or five feet high, and the tops tied to strong stakes. The canes taken off may be planted at proper distances; they should not be nearer than four feet in the rows, and six feet between the rows, and, according to their strength, be reduced in height—weak ones to two feet, strong ones to three or four; they should, at all events, be cut down to a strong bud, for the small ones cannot do any good. The ground should be dug between the plants.

Strawberries.—Few fruits have been more trifled with than this universal favourite; and if those who love the garden, as well as strawberries, read half the nonsense that has been written about them, it would deter people from attempting to grow them. Nothing is more simple. This is the

on the under side, just below a leaf or joint, and bring the knife upwards, slitting the branch about half-way through; cut off the sloping piece *below* the joint on the tongue thus formed, that it may be square, then carefully peg the branch down on the upper side of the portion cut, and the slit will naturally open, the end of the branch above ground will bend upwards, and thus fastened will root in a given time, according to the nature of the plant so layered.

All the spaces between the young trees should be dug or forked; vacant ground should be dug or trenched ready for planting; seedling trees, shrubs, and plants of all kinds that are large enough, may be planted out; shrubs and trees that have grown too large for the present room they occupy, should be replanted at wider distances, or there may be sufficient number taken up to leave the rest at proper distances, and those so removed may be planted out elsewhere.

Pruning forest trees and young

ornamental timber should be now looked to, chiefly removing the side shoots of those intended for standards, and taking away any uncouth-growing branches.

Seeds of all the trees, shrubs, and plants may be sown in the ground already prepared for them, covering them according to their size, one or two inches thick. This comprises nuts and berries of all kinds, large and small seeds of all sorts.

Young Seedling plants of all the Americans and other choice subjects, should be hooped and matted against frost; those who can, cover them.

Herbaceous Plants, and perennials generally, may be parted for increase, and planted on store beds to give strength.

The present is an important period for generally cleaning all the stock, and for planting out all kinds of stocks for budding and grafting: rose, plum, apple, quince, and others, for working the various choice subjects, should be got in this month, if not done before, and at distances to allow of working.

PITS AND FRAMES.

In this department we comprise those structures that are without artificial heat, and the plants usually kept in them; and in January they are all occupied.

Auriculas should have a frame to themselves. The principal evil to contend against with these, and in fact nearly all plants, is damp; and when frames stand on ordinary ground, which is too often the case, it is impossible to guard

against it; many stand the frames on a bed of ashes or brick rubbish, or gravel, or some medium which they consider dry, and think themselves secure, forgetting that every time they water the plants the surplus runs into the stuff at the bottom, and has to evaporate within the frame; it soaks in, certainly, and the top is soon dry; but nothing perishes in nature; the water rises again in a

damp fog, which is poison to plants in confinement, and none suffer so fatally as Auriculas; the only safety consists in making a surface, from which water will run off. Paving with brick, tile, stone, or concrete, laid with a trifling slope, so that whatever runs through the pots will run off directly, is absolutely necessary for the security of this delicate plant. It is very true that many people grow them well on the ordinary ground, because, when the weather permits the frames to be frequently opened, the damp vapour goes away. It is only when a long frost prevents us from giving air that the damp vapour is confined and settles on the plants. As this precaution cannot be taken by everybody, and many set the frames on the best bottom they can make, all we can urge is, never to water the plants till they are obliged, and on every possible occasion give air. On fine open days take the glasses off altogether, pick off the dead yellow leaves very carefully, by pulling them sideways, and rather downwards, and keep the earth now and then stirred on the surface, but without going deep enough to touch any of the fibres. The blooming plants for exhibition will throw out side shoots occasionally, and unless you want the increase, take them off before they grow any size, while they are almost buds; if the increase is required, take them off as soon as they are large enough to strike. If you have neglected to take off any of the bloom stalks that come up in the autumn, it is better to take them off now than to let them flower; but any that are now show-

ing the bloom-buds may flower well, although too early for showing. Seedlings that may remain in the seed-pan must be carefully looked to, and the soil stirred slightly on the surface.

Carnations and Picottees.--These are as impatient of damp as the Auriculas, and the treatment ought to be as nearly similar as possible; the leaves that turn yellow must be removed very carefully, as the bark is easily injured. They are benefitted by stirring the surface of the soil, and require water very seldom, in fact, being almost still all the winter months, they hardly want it while there is the least moisture in the pot, and this is easily seen by turning out one of the balls and replacing it.

Pinks are not potted for the sake of protection, but for the convenience of removing and late planting; for if they are carefully grown in pots, they will turn out into beds, not only without suffering, but will do as well, or nearly so, as if the bed had been made in autumn. They are usually potted in four-inch pots, a pair in a pot, or in three-inch pots singly; they will take more water than Picottees, or Carnations, because they grow more during the winter; but they must not be kept damp, and they must have all the air they can get every fine day. Though more hardy than many plants, and capable of standing the winter out-of-doors, they will not bear much frost in pots, because, if frozen through the sides of the pot, the spongioses of the roots get killed, and the plant receives a serious check.

Pansies are kept in small pots for transplanting into beds, and

in large ones for early bloom; for the present month they are in three-inch pots, and require attention to watering; the plant is never idle. If they were put in large pots of rich soil in autumn, they would grow and bloom partially all the winter, but they would not be saleable nor transferable; the object of store-pots is merely to keep them on the move in a small compass, that they may be packed well or transplanted in the spring; these, too, cannot have too much air in open weather, nor does a gentle shower hurt them.

Cinerarias cannot bear frost, and if in common frames, the wood-work ought to be banked up with turfs a foot thick all round, be entirely uncovered in fine weather, and covered beyond the reach of frost every night; they, too, are impatient of damp, want frequent examining, the bad leaves picked off, the earth stirred, and seldom watering; but with all our care, a hard winter, a little confinement, or a lengthened period without sun, will subject them to the red spider and fly; the former can only be got rid of by dusting the leaves with black sulphur, and the latter by fumigation with tobacco or tobacco-paper. They, perhaps, do better in a greenhouse.

Polyanthuses and *Primroses*, when grown in pots, must be protected with a frame and glass, and they must now be carefully looked over for slugs and snails, for if these once make a serious attack on them, the plants are very long before they recover. Take off the dead leaves, and do not allow the earth to get dry; they do not take half the harm from wet that any other plant does.

Brick Pits with good strong lights are nearly as good as a greenhouse for many subjects, because, when shut up and well covered, a frost must be very hard and very long to get in to them; on this account many people winter their Indian Azaleas, Camellias, and other half hardy shrubs and plants in them, for nothing but frost can hurt them if they are kept tolerably dry, and the water that is given them can run off; but some attention must be paid to certain conditions—first, the plants must not be crowded, nor even touch each other; next, they must always have plenty of air in dry mild weather; in fact, all the lights may be taken off, but in damp and foggy days they are better without any. When the wind is north-east or east, even if there be no frost, they must either be shut or only tilted on the off side. Very many greenhouse plants may be housed in brick pits, when, as is frequently the case, there is no better convenience. Heaths are also grown in brick pits successfully up to a certain size, but as everything wants light and air, and Heaths more than almost any other plant, tall ones must be in deep pits, and have sufficient light and air at the bottom. However, a good deal of the mischief is avoided by giving plants plenty of room. Stocks and mignonette are leading articles, and many thousands of pots are grown yearly; these should be thinned to three or four plants in each pot, and those taken out may be potted if wanted, the same number in a pot.

Violets in frames, whether planted in the soil or in pots, will require

to be frequently cleaned; the under leaves decay, and must be pulled off; these are ready to be forced, as they may be wanted a few at a time, and if kept in the cold frame will flower before those in the open ground.

Hyacinths and Narcissus. — Tulips and other bulbs may be well grown in frames, and when intended for forcing, they can be removed as wanted, but they will bloom finely in the cold frame; but these, unlike fibrous rooted plants, require to be kept moist, in fact, as the blooms rise, they must not be allowed to get dry on the surface.

Pits and frames should be kept

very clean; they should be swept out occasionally, and the inside of the glasses should be cleaned; no dead leaves should be allowed to lay on the bottom, and where there are shelves so disposed as to bring the plants near the glass, the bottom should also be waterproof. It is as necessary to keep the under part of the stage dry as it is to dry the shelves, for the damp will rise up to them and settle on the plants, so that those who adopt shelves to keep plants dry are sadly mistaken, unless they use all the precaution that we have pointed out for frames on the ground, and see that the water runs off.

THE FORCING GROUND, ETC.

In this department of gardening is comprised everything that hastens the perfection of fruit, flowers, plants, or vegetables; and from the forcing of Rhubarb to the fruiting of a Pine, we must endeavour to lay down rules for the operator. We shall treat of subjects which interest everybody, and are within the means of almost every gardener, whether amateur or professional.

Almost everything that is capable of being forced would suffer, and most likely fail altogether, if suddenly removed from cold to extreme heat; and therefore one prevailing rule is to put everything through a gradual increase of the temperature. The effect of sudden change from cold to heat in flowers is a failure of the bloom. Put a hundred Moss Roses into the forcing-house from

the open ground, and scarcely one will give a good bloom; put a dozen into the greenhouse at the coolest end, in a fortnight remove them to the warmest end, in a fortnight more let the heat be increased ten degrees, and then they may go into the forcing-house with the certainty of flowering well. But we must make an exception to a forcing-house for Roses alone, because they may be at first without heat, and the temperature of the forcing-house gradually increased until regularly set on. When we say they must not be removed from the open ground to the forcing-house, we are presuming that the forcing-house is in full work with other things. In many family establishments the stove is the only forcing-house, and for the sake of its own plants it is of necessity at a tem-

perature of 60° or 65° at least, by day, and somewhat lower at night. In some establishments, where Forcing, Vinery, Peach-houses, and Stove are always going, the whole of them are made available for forcing something.

Apricots are easily grown in pots and kept dwarf. These are to be gradually inured to the heat, therefore at this period are in some of the houses. Have a care that they do not want for water, and invariably rather warmer than the temperature of the place they are growing in. Pot them no lower than the collar of the root.

Cherries do admirably in pots. They are better for being a year established, but we have known them potted up from the open ground as soon as their fruit buds could be detected, so as to enable the gardener to make a good choice. These, like the other subjects for forcing, must be gradually inured to the heat, and must at least be 55° by day.

Cucumbers and Melons are forced many ways. A common hot-bed is the most prevalent medium, but there are many different forms of pit and house adapted for this fruit, and we have seen them produced at all seasons by each of them. The common hot-bed shall be first spoken of, because it is within everybody's means, and the dung when done with is worth as much as when it was hot. Make a hot-bed this month five feet thickness of dung, which will sink down to four by the time it is ready for the plants. Let stable dung be shook out lightly and put in a heap for a few days, until it gets hot; fork it all over again,

and shake it out to another heap, and if any portion of it is dry, water it with a water-pot; and this shaking out and changing it from one heap to another must be repeated till the dung is all over of a moderate heat. Then build it up like a small hay-stack, square and upright, about one foot larger all round than the frame which is to be placed on it, patting down the dung, but not pressing it, all the way you build. Next put on the frame and light, and shut it up. Thrust a taper-pointed stake into the back of the dung, and make it reach the centre of the mass, that by withdrawing this daily you may feel the heat of the bed. When the heat has come up well, and the inside of the frame is of the temperature of 65° or upwards, the bed will have sunk considerably, and perhaps unequally. In this case take off the box and light, and adjust the bed, putting all over the top surface three inches thickness of loam, from rotted turf two parts, and decomposed dung rotted into mould, one part. This should be mixed well together and kept ready for use, but if we have not got it ready, we must use it newly mixed; then replace the frame and glass, and close it down till the heat returns. If you can procure plants, or have got them ready, you may before the end of the month place a plant—many put two—under the centre of each light. But if you have to sow the seed, sow a few in a pot and put on the frame. As soon as up, pot them off singly in a three-inch pot, or two plants in a four-inch pot; give them a little water, and replace them in the bed. As soon

as they have two good rough leaves, and the plants keep growing, pinch off the top of the shoot to induce a side growth; and as soon as a couple of side-shoots make their appearance, the plants are ready to put out into the frames. Now comes the question, whether the same hot-bed will do any good towards fruiting them? If the heat has declined a little, it can be recovered by removing some of the cold dung that projects beyond the frame till you come to the warmer portion, and line it well with hot stable dung two feet thick all round. This will bring up the heat; but the heat should never be less than 58° in the night and 75° by day. If the heat has declined a good deal when the plants are ready to go out, which is not very likely, keep it for other subjects, and put all your Cucumbers into newly made beds after the same plan. Some gardeners make up a slighter hot-bed this month, on purpose to raise their Cucumber and Melon plants; but there is no saving beyond the dung, and it is better to keep the plants in their pots in the first bed till wanted. Nevertheless, if you can get plants by the time your first bed is ready, instead of having to raise your own seed, it is far better. Whether you make your bed this month or the next—whether for Melons or Cucumbers—it must be made the same way, or something like it. Pits have been made for Cucumber-growing, some to hold dung under ground, some heated with hot water, some one way and some another, but the treatment of the plant must be the same, because the heat must be suffi-

cient. If your hot-bed is considered sufficient for growing the Cucumbers on to fruit, take the pot in your hand—whether with one plant or two—turn the ball of earth out, and set it upright in the middle of the bed, and put the same kind of earth all round, a little higher than the surface of the ball, so as to form a sort of basin for the convenience of watering. The roots will soon come through the heap, when you must add more, and at length add enough to nearly level the soil; for the ridge that formed the basin must be levelled and drawn down, so that the average thickness of the soil must be about six inches. Before the month is out the plants will have grown a little, and want regulating. Meanwhile, you may make as many new beds as you please, and get plants in them as fast as they are ready to receive them. Cucumbers are also easily forced in a hot-house in large flower-pots, and the plant allowed to run up the rafters of the stove, the fruit hanging down.

Figs will grow and ripen in a common stove without any extraordinary care. The small dwarf kinds are best adapted for pots; but where houses are provided on purpose for them, some attention must be paid to the entire crop. Pots should be plunged in tan this month, and the fig-house requires nothing but forking the beds in which the trees are planted, and keeping the temperature at 50° to 55° .

Peaches and Nectarines.—Whether in pots or planted in the peach-house, the temperature now should not be more than 50° or

55°. Pots may have been in the house a month, but will require nothing at present but to be refreshed with water occasionally. To commence potting Peach-trees: for this purpose get three-year-old plants, and put them into twelve-inch pots, cutting all the branches back to three or four eyes, and bring them into the house this month to inure them to a change of season; but they will bear nothing this year—only grow.

Plums may be forced in pots as Peaches, or in tubs, or they may be planted in the border of a hot-house. In either case they ought to be in the house this month, and the temperature, 42°, gradually raised after the first ten days to 52°. Pruning of fruit trees is the same in the house as on the wall.

Strawberries.—Begin forcing, when the pots with established plants are brought into the house, at 40°; increase gradually to 50°, when the flower-buds swell, and ripen at 55° or 60°. Whether you have already begun, or begin now, this must be attended to.

Vines.—In all hothouses, stoves, greenhouses, and conservatories, where there happen to be Vines, the grapes must be subservient to the principal objects of the house; but although much can be done towards assisting them, it is impossible they can be so fine, or be calculated upon at a given season so well with plants as without them: in fact, unless everything give place to the necessary management of the Vine, the fruit will not be all it ought to be. With regard to the pruning, wherever there are plants to protect, there must be but one rod

up the rafter; but as to managing the rods, it is the same as a rod on the wall. The Vine must begin forcing at 50°, and be gradually got up to 60°, till in full leaf, gradually increased to 70° while blooming and ripening; therefore the Vine cannot be said to have justice if there be any plants that will prevent this. Nevertheless, the Vine when pruned well is conformable to almost any regular temperature. It has been said that with six houses ripe grapes may be had all the year: we believe it could be done with a less number.

Vines in Pots.—Those well established for fruiting—either the first lot or for succession—may be pruned back to the ninth eye, and taken into the house—the greenhouse, if there be no regular vinery; and the shoot may be tied horizontally until the eyes break, or be coiled round a trellis.

THE PINERY.

Although the Pine-apple may be fruited in a common hot-bed, and frequently is among stove plants, it thrives best in a proper pit or house, and is very little the worse for a Vine up each rafter above, and a row of Strawberries on a top shelf. There must be a good body of tan, or a medium in which bottom heat can be secured for the plants. This is sometimes provided by means of hot water. Tan is the favourite, and this ought in the present month to be of the temperature of 80° or 90° at the bottom of the pots. Water about twice in the month; and if you have reason to believe the soil is impoverished, water with liquid manure

once out of three times; and the safest liquid manure is decomposed dung fairly rotted to mould, a good spadeful to ten gallons of water. Any suckers that are ready may be taken off and potted; any plants that have filled their pots too full of roots may be shifted. There is no season that can be recommended in preference, and it is idle to suppose any one month is better than another for an operation which is not dependent on season but on progress. Market gardeners endeavour to fruit Pine Apples about the particular season that they sell best, but private families like their fruit to be always ready; consequently when any plant is ready for a change of any kind, give it at once, and not let it go back for want of attention until others are wanting it also. When a fruit has been cut, it has been the practice with some to take off the suckers, remove the plant, and fill its place with another fruiting Pine. Mr. Hamilton, who published a treatise on the subject, earths up the old plant, so that the sucker, or perhaps two, may strike into the soil without losing in the meantime the nourishment from the mother root: the consequence was a more rapid development of the fruit; for we have seen noble fruit on two suckers ripened within nine months of the time the parent fruit was cut. He managed the earthing up by means of additional rims put on the pot.

Melons.—These are in all respects so similar in growth to the cucumber, that we need only refer to that article.

There is no reason why any

fruit that grows may not be forced; but nothing is to be gained by it. Pears we can have almost all the year round; apples quite all the year. Currants and Gooseberries are preserved so well that no one would give a price for the fruit before its time. Otherwise, it matters not what we propose to ripen before its time; we have only to begin with a healthy plant in a low temperature, and gradually increase it till it is equal to the season at which such things ripen; there is very little difficulty.

VEGETABLES.

Asparagus.—Make a hot-bed this month as if for cucumbers; when three inches of soil is on, and the heat genial, procure three-year-old roots of Asparagus, and place them on the surface, spreading out the roots, but placing the plants as close as you can; cover this with three inches more soil, and when done, shut up the frame, only giving air to let the steam out; when the heat has come through, another inch or two of soil will be necessary for those who want a long hard uneatable stalk, but for those who consider Asparagus a delicacy, and enjoy it, no more earth is necessary; the crowns of the roots are about two inches below the surface.

French Beans.—Sow three or four in a six-inch pot, and as many pots as you please, this month, if you have not already done so; put them into the greenhouse a short time, and then into the hothouse, unless there be a house on purpose; water them when the earth gets dry; water also any that are up.

Sea Kale is forced now the same

as we have recommended for Asparagus, except that the whole frame may be filled with leaves, and covered with wood instead of glass, or ashes may be used instead of leaves. But in the open ground each plant may be covered with an earthen pot with a solid cover, and the whole be enveloped in a heap of hot stable dung; this month you may begin.

Potatoes.—These may be forced in a moderate hotbed; and when prepared with four inches of good light soil, set whole sets of potatoes in rows a foot apart, and the sets six inches apart from the back to the front; put on three inches more soil; these have only to be kept clean, have air on mild days, and to be dug up when they are large enough; any small potato will be adapted for this culture. The Fulham Early Round and the Ash-leaf Kidney, are the best perhaps of those that are reasonable in price.

Peas may be forwarded by sowing in pots, as we should sweet-peas, securing them as they grow to prop-sticks, shifting them into six-inch pots if they fill the others before you can put them out, and, if necessary, letting them bear in the greenhouse; but the object to aim at is to get them strong and healthy, just budding into flower by the beginning of May, by which time they might be turned out. Those sown now will come into bearing before they could be ventured out-of-doors.

Radishes, Lettuces, Salads of all sorts, *Onions*, may all be raised in hotbeds sown this month; so also may *Carrots* of the early kind.

Herbs, such as Fennel, Mint, &c. may be potted up out of the

ground, and forced two months before their time, by placing them this month in a common hotbed or in the stove.

FLOWERS.

The forcing of flowers is more or less practicable, and practised by every earnest gardener, professional and amateur. The nurseries are always provided with a quantity of dwarf plants, potted on purpose for forcing; Azaleas, Rhododendrons, Lilacs, Kalmias, Deutzias, *Wegelia rosea*, *Jasminum nudiflorum*, Roses, especially Moss, and other plants, all calculated for early flowering. Procure a stock of these, and every fortnight take a few into the greenhouse, and when you like, the second lot into the greenhouse; take the first lot into the stove, and so continue; remember, that when they once begin to swell their buds they require a good deal of water.

Bulbs.—The pots of Hyacinths, Narcissus, Jonquilles, Campernels, Early Tulips, &c. may be brought into the greenhouse for succession, or as a beginning. These require a good deal of water, and it is by bringing a few at a time from the cold frames that a succession may be kept up for a considerable time; remove to the stove any that have been a few days in the greenhouse.

Roses are worthy of the gardener's skill; and, considering the beautiful specimens at the exhibitions, are as much indebted to the mechanic as to the gardener; it is, or ought to be, the ambition of a young gardener to give practical proof that so many props and lines are not necessary,

by exhibiting some without them. In the year 1837 or 1838, or thereabout, we showed "twenty or twenty-five varieties of China and Hybrid Roses" for a very handsome prize. There were but two competitors—one showed the Roses cut, and being the greater part small, they cut a poor figure; we showed ours in pots, and not a stick nor a tie to any of them, two-thirds were standards and half standards. We were defrauded of the prize because ours were in pots, although there was no condition annexed to the prize, which, however, was doubtless intended for the man who had it; but we mention this to show that

they can be grown without supports, and ought.

Begin by pruning carefully whatever plants you intend to force, not leaving an inch of weak wood. If standards, keep the head clear of any inward branches, let the pots be ample, and remember that the plants forced last season will force best this if you have taken care of their after growth, and let them ripen their wood. Put these into the greenhouse this month, and the sooner the better; let all the ripe wood be cut back to two eyes, unless you want to retain more for the sake of shape, and cut away everything weak and unripe.

STOVE OR HOTHOUSE.

ALTHOUGH where there is one stove, so called, there are fifty greenhouses, there is not one-half the difficulty in managing the former than there is in looking after the latter. The whole business of the stove is heat and moisture—the only care of the gardener is to see the plants properly watered. But there are times for stove plants to rest, and then the only attention required is to let them alone until they make a move.

Amaryllis.—This beautiful tribe of plants exemplify our notions as well as any we can mention: when they are growing, give them all the moisture they want or will take; when their leaves begin to turn yellow, and not till then, leave off watering, and do not touch them till they begin to start again: this will be by pushing the

end of their bloom sheath through the top of the bulb, and some may be doing so now. Shift these, and these only, into pots a size larger, without disturbing the ball, and give them plenty of heat, light, and moisture; but confine this operation to those only which show themselves upon the move: those which are too small to bloom will show their green leaf, but they must have the same attention. When they have occupied pots as large as is convenient, turn them out during their period of rest, and shake out all the soil; re-pot them, water them once, to settle the earth about their roots, and let them alone till they move.

Keep the temperature of the house up to 65° to 75° during the day, and 55° to 60° during the night; and keep a registering thermometer in the house, to

show the extremes, for it is of the highest importance to know whether any indication of ill-health in a plant be caused by cold, or you are to look for other mischief.

Growing plants of every description must be syringed occasionally, and the house shut up close. All those which have filled their pots with roots must be shifted into others a size larger.

Cuttings that have rooted must be potted off, as well as seedlings that are large enough. Cuttings may also be taken off, and struck under a bell-glass with bottom-heat.

Any plant that looks unhealthy should be examined by turning out the ball. If nothing particular appears, and the pot is not crowded with roots, replace it, give a little liquid manure, and plunge it in the tan to the rim of the pot.

As some of the plants brought in to force into early bloom will be ready to open, send them to the conservatory, and thus make room for a succession; bearing in mind that all things under forcing treatment take a good deal of water, and suffer much for want of it.

If there be any decline in the heat of the tan-pit, get new tan, and mix it up with the old; but if the old be too much decayed, either discard it altogether or sift the dust from it, and keep only the largest to mix with the new; for although a tan-pit is not absolutely necessary to make a hot-house, it is necessary to have bottom-heat at command. If, however, you have the hothouse separate from a tan-pit, the directions here apply to both as if in one.

Although it is no part of the duty of the stove to grow cucumbers, it is so easy to grow two or three plants in large pots in the tan-pit, and carry them up the rafters, that, unless you have great convenience elsewhere, or are regularly growing them in other structures, one can hardly resist the temptation to grow them where they are no trouble, and cut a score or two during the season.

Remember that any relaxation in the heat and moisture of the house engenders the red-spider—and once in, it is difficult to get rid of; and if the mealy-bug appear—which is a sure sign of laziness in the manager—nothing but incessant washing with warm strong soapsuds will get rid of it, and keep it under; for the very web or white dust that flies about would appear to be the spawn, and it settles anywhere and everywhere.

Cleanliness with the plants, pots, shelves, flooring, and walls is absolutely necessary for the health of the plants; and air, which must be given cautiously, cannot be given too often, so long as it does not lower the temperature below 60° or 65°; but avoid doing it except when the heat is well up, the weather still, and you are on the spot to stop it when you please.

As to the several plants, about which we might write a good deal, there is nothing required this month but what is here directed, except

Seeds of Stove Plants may be sown at any time; and when imported, and you do not know its age, you should sow it instantly;

for, a short time exposed after the packages are opened, may destroy the vitality. But, before much room and time are lost upon growing seedlings, it is necessary to be acquainted with their nature; for we have found nineteen out of twenty of those seeds, which people fancy are valuable presents, perfect rubbish, infinitely worse than our garden weeds.

CONSERVATORY.

THIS is perhaps one of the most effective periods of the year for the Conservatory, because, with ordinary attention to the other houses and the plants in the borders, it is gay and interesting. The *Camellia Japonica* is a very leading ornament. The protracted bloom of the late *Chrysanthemums*, the variety of *Cinerarias*, *Primulas*, and a few of the winter flowering *Ericas*, make a splendid show. Then, if we turn to particular plants, the *Cestrum Aurantiacum*, with its golden-orange bloom, profusely scattered over its surface; the *Roses*, which, without any forcing, enter largely into the winter flora, if only kept from the frost; the *Violets*, which fringe the paths; the forced *Crocuses*, *Hyacinths*, *Narcissus*, and early *Tulips*, add a brilliance. In fact, winter is the glory of the conservatory; and it is the simplest thing in the world, if the means are allowed, to have it from Christmas to March in a blaze of flower; and after that the difficulty is still less, if there be any at all. As we have said what it ought to be this month, set about making it so if there be anything short, and lose no time about it.

Cleanliness is the first essential, for nothing compensates for dirty

shelves, glass, borders, or floors; not a fallen leaf or petal should be seen; and all the cleaning should be done before the family is in sight. The conservatory should never be visited by the gardener or his men while the household is about. It is the reading-room of some ladies, the working-room of others. It may be the audience-room upon some occasions, and the smoking-room on others; but, except the conservatory-bell be rung, no one employed on the premises should be within sight.

Great care should be taken of the climbing-plants, that they do not grow too wild. "Train them up," like a child, "the way they should go," for it is difficult to get them right if they once go wrong.

Fork the borders in which plants are permanently planted out; remove plants that are merely plunged in pots and have gone past their prime; but remember, that as all plants force better the second year than the first, if properly attended to, you must take as much care of them when done with for the conservatory as you did while they were preparing for it. Let them perfect their growth in a proper temperature, and take

their rest afterwards. There is no exception to this, unless it be in herbaceous plants, which force as well the first year as at any time; not so with Roses or Azaleas; in fact, plants of all sorts that do not die down annually force better the second year.

GREENHOUSE.

THIS is perhaps the most important department in the garden establishment. In the stove or hothouse we have only to guard against cold, and a few degrees of heat produce no evil result; but in the greenhouse we are between heat, cold, and damp, and all these extremes are mischievous. Frost is fatal, damp a slow but sure poison, and heat very injurious. The temperature should never be higher than 50°, nor lower than 33° or 34° in winter time; and the only way to prevent damp is to light fires in the day-time, and give air in greater or less proportions, according to the degree of temperature within. There must be no damp on the shelves nor on the ground, no dead leaves about, nothing to harbour or create damp. There are many classes of plants that will thrive in ordinary greenhouse treatment. The Epacris tribe, the Acacia tribe, the Azaleas, Hoveas, the Camellia Japonica, the Erica family, and Botany Bay or Cape plants, generally will do with similar treatment. They cannot stand much frost; they are as ill-suited with heat, and they do not flourish in damp or moisture. They all require all the air they can get; they do well in any wind but north and east, even if a little strong, and want but little water during the winter. But Geraniums cannot bear half

the hardships, and therefore, being a family of great importance with the florist, it is not unusual to give them a house to themselves.

At this time all greenhouse plants should be examined to see how the roots appear; if they are beginning to mat together round the sides of the pot, they must either be shifted to larger sizes, or be carefully watched that they do not lack moisture, for when the pot is full of roots the moisture is soon absorbed; and Camellias, Acacias, and such other plants as have set their buds, are on no account so well shifted at this period as after blooming; nevertheless, those which are not too forward may be safely put into larger pots. Too sudden an excitement, or too violent a check to Camellias, would cause them to drop their bloom-buds; therefore, watch and water them more frequently in preference to changing their pots; there is no other plant so susceptible.

Make room in the greenhouse for all the plants and flowers that want a probationary fortnight or three weeks on their way to the forcing-house; turn out those which have "bided their time," and let a succession take their places. Tropeolums and Kennedys, as well as other climbing plants of the like nature, must be constantly watched as they

advance, and be directed in their growth; for if they be neglected until they have rambl'd about, they cannot be placed so well as they would have grown when properly led.

Cuttings that have rooted may be potted off singly into three-inch pots, or less, if the plants be very small; and others that have made growth and filled their pots with roots may be shifted. Cuttings may still be taken from any plants whose wood is in a proper state, that is to say, whose shoots can be taken off close to the last year's ripened wood, but not with any part of it attached to them, and these may be struck under a bell-glass; as the rooting, however, is facilitated by bottom-heat, you may give that if you can.

If you have *Cinerarias*, *Geraniums*, and other soft-wooded plants in the same house, be doubly careful of damp and cold winds.

On the least appearance of green-fly, fumigate the house with tobacco-smoke, and on the slightest attack of red-spider dust the plants with black sulphur.

In frost, keep up the fire heat by day, and open the glasses a little at top, for the temperature

need not be over 40° all day if kept down by air, and the house may be closed as soon as the glass falls towards sun-set, or earlier; no matter how low short of freezing the glass goes down at night.

All the bulbs in glasses or pots must be looked after, for the glasses should be kept full and the pots regularly watered; to bloom them in the greenhouse can hardly be called forcing, but whenever a few are wanted to be pushed on a little they can be removed to the stove.

Those who have but one greenhouse for all their plants must contrive that the most hardy are placed in the coolest and most airy part, and the more tender ones in the warmest.

Seed of all kinds of greenhouse plants, *Geraniums*, *Cinerarias*, *Calceolarias*, *Primula*, *Hovea*, *Epacris*, and others, may be sown in pans this month, in a mixture of two-thirds loam and one-third peat put through a small sieve, covered very lightly by means of the sieve with the same mixture. This must be put in a warm corner and be kept moist, but not wet. It is a good plan to cover the whole with a little damp moss, to be removed when the seed begins to germinate.

HEATH STRUCTURES.

THESE are various. We have seen some thousands of *Ericas* growing well in brick pits, without fire or other artificial heat, and as it was continued for years, we have no reason to think it a bad plan; but there was nothing large. The management consisted in opening them completely every

fine day through the winter, and covering them close in hard frosts; we have seen them often with the soil on the pots frozen hard on the surface, and then the only precaution taken was to cover them from the sun until everything was thawed again.

But Heath Structures, to grow

plants of any size, should be easily opened altogether, sides and top, and as easily closed. A draught of air would be detrimental; but thrown open to the wind that it might fairly blow them about, they thrive well. A ridge roof, of which the top lights would slide down on the lower ones, and the side and end windows open out straight, with a middle table level with the lower part of the front lights, so that the tallest plants might go along the middle, and the shorter ones come nearer the edge, and a two-foot table next the window, would be the perfection of a Heath-house for specimen plants of all sizes. If there were any of extraordinary size, too tall for the table, it might be shortened, to make room for them on the ground. The advantage of this house would be, that it could be closed or open, or partially open, according as the weather may dictate.

As we have not all got exactly what we should like, we must do the best with our present means;

therefore give the plants all the air you can on mild bright days. Let gentle winds blow them about, that is, if they are not on an exhibitor's usual scaffolding, for it does much good to move their branches a little; but even laced and caged up, as it is the fashion to grow them, the wind will do them good. Great care must be taken in watering; never give them a little; always pot them so that the pot above the soil will hold as much water as will go through all the soil; this, however, must not be given while they are at all moist, and give no fire-heat until absolutely necessary; when you do, it would be well to have a self-acting ventilator, that should open when the temperature rose to 45° or 50°, for artificial heat is detrimental, not perhaps perceptibly at the time, but in reference to permanent health. Excitement, beyond a certain point, is injurious to plants as to animals, and is therefore to be avoided as much as possible, and especially with Heaths.

GERANIUM HOUSE.

This month we must continue to stop all the shoots that grow out of form, and also all that we require to throw lateral branches to make plants bushy.

It forms no part of our business to give the directions, like the treatise writers, for sticking in props and tying up branches; growers will do this in spite of us if they think proper, but a Geranium, if grown properly, wants no assistance.

As these plants grow all the winter, their pots soon fill with roots, and many will require to be shifted this month; the only way to know this will be to examine here and there one, by turning out the ball, and if the roots have grown round the side, put the plants in pots a size larger.

Those who draw these plants up weekly, and continue stopping the shoots to increase the number, will keep the house now at 50°

or 55°; others, who would grow them naturally, will be content with the temperature of 40° to 45°. The plants will not be so monstrous, but they will stand without props; the flowers will not be so numerous, but they will be larger and finer.

Pot off all struck cuttings, if not yet done; keep all the small

plants close to the glass; give air on mild days; and if the house be inclined to dampness, give heat, and keep the top lights open to dry it.

Seedlings should not be stopped; let them grow their own way without check, that you may see their natural habit up to their first blooming.

WINDOW GARDENING.

THE ordinary temperature of a dwelling-house would assimilate nearly to a greenhouse, if the good people who had the care of plants were careful upon a few important points: *First*, never to leave them in a draught of air, by leaving windows and doors open at the same time; removing them on one side, out of the direct draught, would obviate the evil, if the doors and windows must be open at the same time. A high wind is not damaging, unless it breaks them; but a slight constant draught is bad. *Second*, to water them seldom in winter time, and never till they want it, but then to wet all the soil. *Third*, on no account let them stand in water in their pans, for it stops all air to their roots from below, and soon rots the only useful parts, the spongioles, or ends, of all the fibres. *Fourthly*, to give all the air they can in mild weather, by opening the window, but not the door. We are directing now for the present and winter months generally, but a good selection of plants is everything, and we shall speak of none but those proper to depend on.

Bulbs.—Hyacinths, Snowdrops, Tulips, Narcissus, and all other hardy bulbs, are either in pots or glasses before this time; and all they require is light and air at present. If, as is very common, the Hyacinth glasses are made chimney ornaments, and the flowers are grown on the shelf, the foliage and stalks will be drawn up to twice their proper height, and will fall down, being too weak to support themselves upright, and they will fall over the side; and if not, they will look ugly. Keep them all, therefore, at the window, close to the light.

Camellias.—Keep the temperature as even as possible, by giving air on mild days only, and shut the windows before sunset. The Camellia can bear a good deal of heat and a tolerable degree of cold, but sudden changes make them throw their buds: they cannot have too much air, if the weather be fine and open. Don't water while the soil is damp.

Cinerarias.—These plants like air, and do not like change: water seldom, and never while the soil is moist; but never give a little—no plant is properly watered unless it

runs through the bottom of the pot, and then all that is in the pan must be thrown away.

Evergreens (hardy) of all kinds, if bought where they have been grown in the pot, will do well even in exposed situations, unless the frost lasts long enough to freeze the earth solid. But if they have been merely potted up for the occasion, the chances are against them: they are, perhaps, some time dying, but they generally get worse every week, till gone altogether. They are as much balcony plants as window plants; but in the balcony, or outside a window, they are too often neglected, and even healthy plants are spoiled for want of water. Give them plenty of air, and they do not mind a little frost.

Fuchsias have by this time dropped their leaves, and only require to be kept out of the frost: as they are by no means ornamental, they may be put aside where they will not be altogether forgotten.

Geraniums are very sensitive, and north-east wind does not agree with them, whether it freezes or not; draughts are as bad. They must never have air if the glass stands below 40°, and no water till, by a slight relaxation of the foliage, you find they want it; then soak all the soil in the pot, but let it drain away and the pan be dry. They will continue growing all the winter; and if any branch grows out of form, too long for the root, pinch the end off, or cut it back.

Heaths.—Those who are fond of these plants should tell the nurseryman they are to grow in the window, and he will supply the kind that will best bear the

treatment; for there are some Heaths that are difficult to grow even in a proper Heath-house. This month they must not be over-watered; but the Heath is soon dead if allowed to get dry. Watch them, therefore; for the soil they grow in dries rapidly. When the soil is dry on the top, put enough water to run through and drain away, and give no more till it is dry again.

Myrtle.—An old-fashioned and much-neglected, but nevertheless a first-class plant, a beautiful evergreen, a neat and pretty white flower, an unexceptionable habit, and the foliage aromatic. These require the same treatment as the Camellia, but they are rather more hardy.

Roses.—The China kinds are the best adapted for the window in winter time: they are by no means hardier, but as they continue blooming as long as they continue growing, they should not be exposed to cold winds nor to sudden changes.

Primulas must be kept inside, except on very fine warm days.

Succulents.—Of all the plants adapted for house culture, nothing beats Succulents. The Cacti family (of which there are hundreds of varieties), the Aloes (almost as varied), the Sedums, Crassulas, and nobody knows how many others, will live for months without water, and are of so many forms, fashions, and colours, irrespective of their flowers, that an interesting collection, that would almost give no trouble, might be got together without difficulty.

Violets require but little attention just now; see they do not get quite dry, and that is all.

FEBRUARY.

PLEASURE GROUND AND SHRUBBERY.

THE Lawn must be attended to all the winter. In the first place, worm casts are abundant, and these must be spread about. Bush harrowing is the best remedy upon a large scale, but brushing them about with a common birch-broom will do for small ones; rolling afterwards is essential, and then mowing is easy and clean work. Every month, in fact every thaw, brings this upon us; and between the frosts in winter time there are some of the grasses that would soon grow into thick lumpy turfs if not regularly cut down. Continue therefore to attend to these particulars; for, if neglected, the lawn soon grows rough, and the coarse grasses will get ahead.

Pruning the various shrubs from time to time, as you observe a disposition to wander and grow out of form, becomes an important duty. The year's growth must we watched, and, if too vigorous, it must be checked, only that care must be taken not to cut away blooming branches or buds. In all cases where bloom buds are set, you must beware what you cut away. Blooming shrubs should always be pruned directly the bloom decays, and before the new growth that is to flower the next year is made.

Rhododendrons show every bud that is to bloom, but there are

many branches that have no buds at their apex. Any of these that are out of form may be cut back at once, and even bloom buds if you think it will improve the form of the bush.

Azaleas are the same in these particulars. Every bloom bud shows; and if you can improve the form of the plant without losing any of these, now is the time to do it.

Lilacs, Almonds, *Pyrus Japonica*, *Crataegus*, the Double-flowering Cherry, Mountain Ash, and other blooming trees and shrubs, show their flower-buds; you may therefore prune out all the barren shoots that grow inside the head or bush without sacrificing a single flower, and it should all be completed this month.

Honeysuckles and Roses on poles, or walls, or fronts of cottages, or trellises, should be pruned and nailed; the Roses may be cut back to any extent without sacrificing the bloom, for their flowers come on the wood of the current year's growth.

Standard Roses in Shrubberies must be pruned as in the flower-garden, except that if they grow among shrubs you may be more careless of their rambling; but you must frequently examine them to see if their stocks are growing or sending up suckers, for these will

in a very short time supersede the head and kill it altogether. Such is the struggle Nature makes constantly to reclaim what Art has taken from her. A vigorous shoot from the briar stock of a fine worked Rose would, if undetected, kill the head in one season.

The verges are apt to spread into the paths and to encroach upon the clumps if not checked; therefore, with a proper edging-iron, cut them back to their proper dimensions, leaving a perfectly smooth edge, for nothing looks worse than coarse rough edges to a smooth lawn.

If shrubs are growing into one another, and likely to spoil both, consider whether either or both shall be removed; sometimes one is sufficient to disturb, but it often happens that both should be taken up and one planted between the spots where each stood; the other may be planted in any place that is thin or that it will improve, but it ought to be done this month.

We are no advocates for delay in garden matters, but still people,

from many causes, may wish to plant now, and if the weather be fine and the ground in good order they may do so with impunity; only bear in mind that all the root must be saved at taking up, and planted before the fibres have time to dry. With great care and vigorous pruning of the branches, particularly removing all the weak and useless ones, even deciduous trees and shrubs may not suffer by removal.

American Plants may be removed at any time, even while in bloom, though that is courting mischief. Azaleas, Rhododendrons, Kalmias, Heaths, Andromedas and others that grow in peat can be removed with a ball that would alone be sufficient to sustain them through their bloom even without planting at all, so that peat beds may be formed now and furnished with plants without the least fear of failure, and by choosing those well set with bloom, splendid additions may be made to the Lawn and Shrubbery without the most remote chance of failure.

THE FLOWER GARDEN.

Alpines should be protected from too much wet, and if at any particular spot on the rock-work or the dry place on which they are grown, it be overhung with trees, so as to create a drip, it will be fatal to them unless thrown off. They can stand a little in the warm months, when the wet drains off rapidly, but in winter it is death to all the delicate sorts.

Azaleas.—These beautiful spring flowers grow naturally in peat

beds, have a root nearly all fibre, and they ramify into the peat soil to such an extent that in taking them up the ball will be whole, and the size it is cut. They are therefore sent from the nurseries with a ball of earth to them quite sufficient to sustain them for weeks even if they were not planted. They will therefore move well at any season but the hot growing months, when they require almost drenching daily for

a short time, and until they have made their growth. They may be bought in this month. There is a great variety now, for both English and Continental florists have raised many noble sorts from the original American varieties. To those who buy a whole collection there is ample room to indulge in colours and shades; but for garden ornament *Ponticum major*, a bright yellow, *Coccinea major*, a bright red, and *Aurantia major*, a bright orange, are the most conspicuous, and weather permitting they may be bought with advantage this month, because they exhibit their bloom buds, and planted this month as well as any other. If they are to be planted in the open borders, you must have a few barrowfuls of peat earth to put round the balls, so that at the growing season the roots shall find some soil to root in instead of suffering a check from ordinary mould. Plant them the same depth as they have been growing; that is, with the top of the root even or nearly even with the surface of the soil.

Anemones not yet planted may be got in any time during the first three weeks of the month; later is not so good for them. Let them be three inches below the surface, and be six inches apart, in beds of four feet, or in patches of three or four along the borders. These grow best in good hazel loam and cow-dung, but they will do pretty well in any garden soil that will bring cabbages, for it is neither a coarse nor delicate feeder.

Annals, Hardy.—If the month be open and the weather tempting, you may sow all the hardy annuals

in the open border; but if otherwise, they will be just as well left till next month. By hardy annuals we mean those that want no nursing to bring them forward, but which will sow themselves if not watched, and come up in due time, *Nemophylla*, *Eschscholtzia*, *Coreopsis*, *Sweet Pea*, *Lupin*, (*Ten-week Stock* and *China Aster* if you can find a warm border and some litter to protect them,) and almost any of the annuals, in a common garden frame without artificial heat; but unless the weather be very open, you may leave it until next month, or you may sow half this month.

Auriculas in the open borders only require protection from slugs, snails, and weeds. They want no water. In fact, it is only the hardy kinds that will live in borders, and they will bear any amount of neglect short of being devoured by vermin, or choked by weeds.

Campanulas are among the prettiest of early flowering bulbs, but if they are growing in an exposed situation, protect them through hard weather by hoops and mats, or cloths, or by three or four inches thick of light litter, such as very long straw broken or bent to make it lay loose, or peahaulm, which, if well harvested, is the best litter that can be used.

Carnations in beds should be still protected against frost, and after heavy rains, which harden and close the surface of the ground, the earth must be stirred about the plants and laid close but loose round their stems.

Chrysanthemums, as they decline their bloom under glass, may be turned out of their pots, cut down close, and planted in rows, and

those already planted must be cleaned occasionally. Where stock is required, any plants may be taken up, parted, or the side shoots torn off to make young ones; but generally the demand is towards autumn, and there is plenty of time.

Clematis.—Some of the varieties of this plant are very delicate in the stems, and they must be constantly watched, and any shoot that has come unfastened must be made firm to the wall or house or trellis, for the wind will assuredly break any portion that hangs loose.

Crocuses, which now almost speak for themselves, only want to be kept clean, and the birds kept off; for sparrows, in particular, will devour the yellow bloom the instant it peeps. It is not so in all situations, but in some they are as bad as rabbits among pinks, or game birds among wheat. If any seedling crocuses are coming into flower, mark only such as are better formed, brighter coloured, or larger than we have got, or that have some remarkable novel good feature; let the others go into the mixture bag.

Cyclamen.—Only keep from weeds and excessive frost.

Dahlias.—Examine these, and if necessary, for the sake of early propagation, pot them and turn them over to the nursery. In fact they may all be potted now, if they have to be propagated; but for amateurs, who only want two or three plants of a sort, they may lay by till they show their eyes, and then be cut up like potatoes, with an eye to each piece of root, and then, if there be no convenience for growing them, up

to the planting time, put them in the ground as you would potatoes, six inches from the surface, and not one year in ten will they suffer. True, in May, when plants are put out a foot high, these will only be peeping; but in less than a month they will pass their early friends, and bloom, as well as grow, stronger.

Delphiniums are the better for having been parted and planted out for strength; and if any have been neglected till now, they must not be separated into small pieces, but into tolerably good tufts, as they will spread no more till blooming time.

Fuchsias in the open ground must be protected by litter or tan or ashes over the roots all through this month to make sure of them, but in mild winters they will generally live without.

Hepaticas are among the gayest of our early flowers, and want no help but to be kept clean and have all the daylight and air. They can be moved with care even when at full flower.

Herbaceous Plants generally should have the earth stirred between them, and the weeds removed, but require nothing else. If you have to put any in other places to bloom, the sooner it is done the better; they do not like checks, when the roots once begin to fibre for their new growth.

Hollyhocks ought to have been parted and grown into strength long before this; but as their final planting out for blooming need not take place till the end of next month, or even half through May, they may still be parted and planted out in store beds.

Honeysuckles, whether climbing

or kept back as shrubs, should have some attention; the former must be tacked up soundly, or fastened wherever they are loose; the latter should have all the weak shoots and the branches that would hang about taken off close. It is quite late enough to remove them, and unless they are in pots they will be all the worse for delay.

Hyacinths will stand a good deal of hard weather, but the flowers are larger and better if protected from frost than they are when left to themselves. The continual checks, though not fatal, are discouraging to free growth and lead to stunting and cramping their blooms; continue, therefore, if possible, to shield them from severe frost and snow.

Jasmines, like other climbers, must be looked after, for they get loose, and then last year's growth hangs about in all directions. If it be intended that the head having got as high as required shall hang over, be careful that all the upper fastenings are very strong, or the weight will drag them out or break them, and there will be no getting the plant back without loosening the head, and having to do the nailing work again.

Narcissus.—This is a large and hardy family, affording a great variety of spring flowers, and comprising gems of all the colours between white and orange. They want nothing but stirring the ground between them, and keeping clear of weeds.

Pansies, if they have been protected with mats or litter, will require it still; but where they have stood the winter without aid they may be cleared of dead leaves and decayed branches, and the

earth stirred so that the top-dressing may go in the fibres a little.

Phloxes, among other herbaceous plants, ought to require nothing but keeping clean; but if they have to be removed to other places to bloom, let them be transplanted carefully and immediately.

Picotees, treat as Carnations.

Pinks which have been top-dressed with short dung from a hotbed, or decomposed cow-dung, have made some growth, and the earth and dressing may be stirred together a little between the plants, and where it has been neglected beds may still be made with plants from the store beds. New beds, however, made with potted pinks that have been kept in frames, may bloom nearly as well as autumn-planted.

Polyanthuses in borders suffer most from snails and slugs, and we can only repeat the caution already given, not to leave one leaf unturned to discover any straggling marauder, the instant a damaged leaf can be found. The most valuable plants are generally the most difficult to keep in health, as if the higher the breed the more delicate the constitution, for there is nothing more hardy than the common Polyanthus.

Primroses want similar treatment.

Ranunculuses.—As the earth is now ready to be returned to the beds, which have been lying open a month, or perhaps is already returned, we may consider the conditions which they require to grow well, and be perfect in June, the month in which the principal exhibitions are held. They want clean, rich, light, but rather strong soil, which we will suppose already

because it is very hardy ; the latter, because it forms a complete heart like a cabbage in miniature. Keep the soil stirred between the plants, and remove all weeds.

Corn Salad, which is now assisting the supply a good deal, in a sheltered situation needs only to be kept clear of weeds.

Dandelion, although in great disrepute as a garden weed, is only second to Endive, when cultivated as it ought to be, and it ceases to be a weed if not permitted to bloom, and when grown clean for use.

Endive.—As it is likely to be wanted, blanch a number of plants, by covering with pots or flat tiles, or by tying up like Lettuces. If there be any fear of very hard weather, take up the forwardest plants, and plant them in pots or boxes, to keep in any outhouse, or, if you have plenty, you may cover them with litter.

Eschalots may still be planted, if not already in the ground. Let them be three inches deep.

Garlick is very similar, but a softer root, and somewhat more tender.

Horseradish may still be trenched into the ground, but will not be so good as if done before, nor so certain a crop ; clean the beds of established plants. This useful condiment is in perfection at three years old, but useful at two, though not so large.

Kale, Sea.—Although it is time this was all earthed up, it may still be done.

Kale, Scotch.—Merely keep the ground loose and clean, drawing soil to the stems. It may be eaten by first taking all the young tops, and by the time you have

gone all through them in this way, the sprouts of the first you took will be ready to begin upon. In using the sprouts only, take them by breaking them off ; do not use a knife.

Leeks.—Earth these up as you would Celery, for the more there is blanched the better the specimen ; do this at the beginning of the month, they will be in good order by St. David's Day and after. This vegetable is not appreciated as it ought to be ; trimmed well, and two or three skins removed, all the root and green cut off, they may be tied in little bundles like Asparagus, boiled in two waters, and eaten with melted butter ; they are mild and delicious.

Lettuces of the hardy kind, such as the Hardy Green Cabbage Lettuce, may stand in warm situations, and do very well under a frame, but those which are only coming up among Radishes or Onions, and have been protected by litter, must not be neglected, for a little frost will damage, if not kill them ; some may be sown in a frame ; those which are growing must be kept very dry and be carefully covered.

Mushrooms.—The beds must be kept warm and dry with six inches thickness of straw upon them, and even then they would be better in a shed or outhouse ; but this belongs rather to the forcing department than the open garden. If the straw has got wet let it be changed for dry, and be not sparing of it.

Onions, which are now up and growing, may be left to thin out by hand as soon as they are large enough for eating, but they must be cleared of weeds, and the sooner

they are thinned out the better; those among Radishes or Carrots, on warm borders, will be eatable as soon as the Radishes, and should be drawn rather with reference to the health of those remaining than the size at present. A few may be sown in a warm situation as an early crop, but not too many.

Parsley may be sown now as well as at any time, but the same may be said for it eight months out of the twelve if the weather be favourable.

Peas.—Continue to sow the early kinds only, although the late tall Marrowfat kinds will stand a good deal of hard weather in the ground; but one great consideration in small gardens is not to occupy ground sooner than need be. Stick all those that are well up, having first cleared them of the earth broken by their coming through the ground; and drawing fine pulverised mould to their stems, let the sticks be apportioned to the height the peas are to grow; if too short, the crop is injured, and if too long they look very ugly, besides keeping the air and light from the plants.

Potatoes may be planted any time from November to May, but there is a good deal of difference of opinion as to the efficacy of spring and autumn planting. It may be necessary to say that all Potatoes planted before the winter and spring frosts have for the most part passed over, ought to be whole sets about half or a third of the size the sort averages. Plant therefore a few now, if not the whole crop, and since the disease has been so mischievous at times, early sorts are the best,

because Potatoes are rarely attacked until August, and early crops, or rather early sorts, may be got off, and indeed have been generally got off before they were attacked, while late ones left on the ground have frequently been damaged. Of course, we do not speak of Field Potatoes, which must take their chance, and are often planted late, but of those crops intended for families.

Radishes are a crop that may be sown now to take their chance of weather, for the seed is no great object, and in families are wanted but a few at a time. Sow a small crop every fortnight if you like. Much depends on the sort of spring they have to encounter. If there be any forward that have been protected, begin to draw them very small, for the flavour is the same, and it thins out the remainder; so also draw Spring Onions from where they are thickest.

Rhubarb should be well mulched with long dung; a good heap of loose stable manure on each crown does a good deal towards strengthening the plant and bringing it forward. If you have not already cleared away the old leaves and stalks, and done all this, lose no time.

Salads, especially the small Salads, are as yet confined to the forcing department, but every description of salad herb may be kept in frames without heat if well covered from frost and kept moderately dry. Mustard and Cress, and the Salad Radish, Rape, &c., may be raised in a dwelling-house or a warm shed.

Savoy Cabbages, as they are out, should be left on the ground for

Sprouts, for in case of a frosty spring they will be valuable. Even these robust plants are the better for stirring the earth and keeping down weeds.

Spinach.—This ought to be thinned out to six inches, or even nine inches apart on good ground, and for consumption the full-grown leaves alone should be picked; it is absolutely necessary, too, to keep the crop clear of weeds, and to stir the surface occasionally. Towards the end of the month, a little of the Round Leafed Spinach may be sown in drills six to nine inches apart.

Turnips.—If you have a bed of good ground in proper trim, sow a small crop of Turnips. If in the store you have any of the old Turnips left, put them into the ground for Turnip Greens; but if

you have a piece of Turnips on the ground, leave all those that are past eating, for their roots to furnish a few dishes of greens. Not that we think them fit to eat by the side of any other Green whatever, but that we have known them useful when nearly all others have been consumed or have failed.

This month any rod of vacant ground, whether from the clearing up and finishing of crops, or from having a rest, or other cause, should be dug or trenched and prepared for future crops by dressing it properly if necessary, and all paths should be cleaned; weeds, which will grow, whether we like it or not, must be carefully and frequently cleared away from everything, and you must not forget the roller.

THE ORCHARD AND FRUIT GARDEN.

— We last month entered upon this so fully, that we can only recommend the immediate fulfilment of all the duties there pointed out. The month brings nothing fresh:—pruning standard and wall-trees—nailing the latter according to our directions—planting at the last moment—putting in cuttings of Currant and Gooseberry bushes, while the trees are being pruned, and the cuttings in good order, should always be attended to, whether the pruning be now or in autumn. Black Currant bushes are not fond of the knife; all the weak and spindly shoots ought to be cut off, clean to the base, and the strong ones

left, because the fruit comes on the last year's wood; but the tree must not be allowed to get choked and crowded; and thus pruning is better done in the latter months of the year, when the leaves have fallen. Making strawberry beds, and many other subjects, were given as directions last month, and should have been done last month: any that were not done must be done. If there be any intention to graft fresh varieties on any of the old trees, procure your scions and put them in the ground till you are ready to use them. Cucumbers and Melons continue as recommended last month.

THE NURSERY.

Grafting.—The sole object of grafting is to unite a portion of a favourite tree to a stock of a more robust and hardy or older quality, that the new portion may grow and form a new tree, and the old one be constantly prevented from growing and throw all its strength into the new head. By this means a hundred pieces of an approved fruit-tree or other subject may be grafted on a hundred different stocks of perhaps three or four years old, and become so many trees of the desired variety. So that a hundred twigs of the Golden Pippin Apple may be made in one year a hundred Golden Pippin trees. This grafting is done by the very simple process of cutting the stock down to the height you mean to graft it; then shave off a slice of the bark with a sharp knife; say, the flat place thus made shall be two inches long; next shave one side of the twig nearly half through, and about the same length. The two flat sides are to be put together, so that the bark of the twig, called a scion, shall join the bark of the stock on one side of the flat place cut, and be there made fast till it unites. If the stock and the twig or scion were both the same size, it would be like splicing a broken stick; but as the stock is three times as large as the twig, it can only be placed at one side of the cut of the stock and made fast, and the other part of the cut stock is bare.

Another plan of grafting, when the stock is larger than the scion,

is to cut an angular slit in the stock from the top to two inches down, to go off to nothing at the lower end, and to cut two flat sides in an angular form in the lower end of the scion to exactly fit the slit, and the barks of both to touch. But there are many more ways of grafting: the stock may be made into a wedge, and the scion may be split up for a couple of inches and be placed across this wedge on one side only, that the barks may come in contact, without which no union can take place. These grafts may all look very ugly, but, if they unite, the growth of the scion will soon cover over the vacant part of the cuts. Or the scion may have a slice cut off of each side, and formed like a wedge, and the stock may be slit, so that the scion may be tucked into the slit close to the bark at one side that the bark of both may be close and touch; but there are many and various ways of grafting, and all tend to the same, making the flat surfaces of the wood fit, and barks join close on one side at least, if not on both. But in all side grafting, where there are two flat surfaces come together, it is necessary to make a slit about half way up the slope of the scion, to form a sort of flat tongue, and another slit, half way down the slope of the stock, tucking the tongue of the scion into the slit in the stock, so that it will hold in by itself until tied firmly with a piece of matting and covered with grafting clay. This is clay kneaded like dough, by beating

the air all out and working in a little cow-dung. This clay keeps the air from the graft till it unites. There are still other modes of grafting, but we may sum it up by saying that everybody may do it if they attend to these conditions; *first*, to cut the graft and scion so that they will set close, and the barks of both meet; *secondly*, that they do it at the end of the present month or early next; *thirdly*, that the parts be tied, so that they cannot slip; *fourthly*, that the air be kept out for a time until the union is complete; *fifthly*, that the scion be wood of the last year's growth.

Another method of grafting should be mentioned, although not very commonly performed now, that is, grafting by inarching. Two limbs of a tree may be brought together, the two sides next each other cut flat and tied together, and if the barks meet they will after a time unite; upon this principle larger pieces of the tree can be grafted, and with good strong stocks in pots; but as they are from eight to sixteen weeks uniting, it is not desirable except under peculiar circumstances.

Prepare for Grafting by collecting the scions, which should be from good bearing wood of last year, about six or eight inches long, and stick these into the ground nearly their whole length; it prevents them from growing, and keeps them in better order for uniting with the stock.

Budded Stocks of last year should be headed down.

Plant out all kinds of stocks, not only for fruit and forest trees, but for Roses; two rows may be planted within a foot of each other,

and leave a three-foot vacancy between every two rows, because each may be conveniently worked from the vacancy on each side, and ample room is left for it; some, however, only allow two-feet-six vacancies, nevertheless all this had better have been done in the autumn.

All kinds of nursery stock in trees and shrubs may still be transplanted from seed-beds or nursery rows, where they have become too large for their place and want room.

Sow all kinds of seeds, nuts, berries, as well as stones and kernels, the former for their own sakes, the latter for stocks to graft and bud on.

Take off all kinds of layers from trees, shrubs, stools, &c., trim them, and replant or pot them. Although autumn is the best time for the operation, it must be done now if not done previously.

No nursery stock ought to remain on the ground more than three years without removal, therefore those who really value the after fate of trees they sell will not fail to transplant everything that would spread their roots too far before they go too long. Many Coniferæ are allowed in some nurseries to stand so long in one place that they do no service to those who are unfortunate enough to buy them.

Many subjects are plunged in pots for the convenience of removing them, but they are allowed to root through and over the pots, making worse subjects for the planter than even those which had the freedom of the soil all round for the growth of their root.

Digging between the trees,

fastening the trained trees to their frames, clearing the weeds away, trimming the trained and standard trees, forest as well as fruit-trees, weeding the beds of herbaceous plants and perennials generally, and among other things, mending the broken rows of plants, shrubs, and trees, and especially of Americans and choice shrubs in the peat beds, are matters of course.

PITS AND FRAMES.

Auriculas.—Towards the end of this month you may stir the earth on the surface of their pots as low down as the fibres, which you must not damage, and throw out the loose soil; then take off the lower leaves that are discoloured and fill up the pots with a rich compost of decomposed cow-dung that has been fairly rotted into mould, and silver-sand enough to make it porous. Fill within half an inch of the edge of the pot. Choose a fine day for the operation, and shut them up in the frame, after giving them a good watering with a fine rose that will not disturb the surface, but it must go through the pots. They may be shut up close every cold day, shaded from the hot sun for a day or two, and after this the lights may be tilted or entirely removed in mild weather; nor will gentle warm showers be at all objectionable until the flower buds appear, when water must not be allowed to get in the hearts. Seedlings and offsets, that have filled their pots, may be repotted any time now, but must be watered and shut up close for a day or two after the change. Seed may be sown at the end of the month, in pots or boxes, and placed in the frames with the plants; and the seed once sown must never be

permitted to dry. It is a common, and not a bad practice, to cover the surface with damp, but not wet, moss. It is a protection against sun and dryness, but it must be lightened very much when the seed begins to germinate, and be removed when it grows to the development of the seed leaves. The sun must be cautiously kept off the young seedlings.

Carnations.—Keep closely covered during frost, and in mild weather give air, but no water if it can be helped. If the temperature any day happens to be genial and dry, take the glasses off, but cover close at night.

Cinerarias must be kept as warm as covering can make them, and not be allowed air when the wind or weather is cold. They are more tender than either Pinks or Pansies. Nor must they be allowed to get too dry, lest the red spider attack them. The frame is not exactly the place for them if there be a greenhouse, for they want a little warmth now and then during the winter months. Nevertheless, with care they may be kept in tolerable health, and in the spring they will soon grow out of the stunted appearance they too often assume.

Picotees are in all respects to be treated as Carnations.

Pinks and *Pansies* in pots for store only, must be treated as *Carnations*; but any that are to be bloomed in pots must be potted in six or eight inch pots with good compost, say two-thirds loam from rotted turf, and one-third cow-dung, rotted into mould. This is very exciting compost, and if too stiff or clammy let sand be mixed to render it porous, but no more than just sufficient for that purpose. Into this compost, then, let all the *Pinks* and *Pansies* that are to bloom in pots be now removed, and the eight-inch pots are the best size. Let them be neither lower nor higher in the soil than they were before in their small pots, the *Pinks* especially; the *Pansies* may not take much harm by being sunk a little. After potting they should be shut up a day or two in a frame by themselves, because they will require watering frequently, while those remaining in the store pots want none until really distressed for it. Again, those which are to bloom in their new pots must be kept warmer.

Polyanthuses and *Primroses*, when in pots, will bear but little water; we do not mean a little at a time, but we mean seldom, for as we everywhere repeat on this subject, whenever anything in pots is watered at all, the whole soil in the pot must be moistened; less than this leaves some of the root dry, and the plant must suffer. The only way to be sparing of water is to withhold it longer; but when it must be given, wet all the soil in the pot, take off the yellow leaves and stir the surface of the mould, throw out the loosened earth and put in a little fresh,

such as the *Pansies* and *Pinks* are potted in for bloom, and water them and shut them close a day or two. As these are not by any means tender unless nursed too much, they may afterwards have all the air that can be given in fine weather. Pits of brick are the proper receptacles of all half-hardy subjects, and of hardy ones while young. *Acacias*, *Azaleas* (Indian), *Hoveas*, and many hard-wooded plants, may be kept in a brick pit instead of a greenhouse. Double *Wallflowers*, *Lobelias*, all the more tender *Roses* in pots, and many young American plants, may be stowed away here. Hybrid *Rhododendrons*, *Daphnes*, particularly *Daphne Cneorum*, are most at home in a cold pit, and, as we have said before, the *Camellia Japonica*. In fact, hundreds of plants which are thoroughly hardy when old enough to be established, are, nevertheless, tender while young and in pots; the pit is the proper place for them, and they want nothing more than to be kept clean and dry.

Warm Pits are like stoves or hothouses, and the treatment of everything in them must be the same as if they were in their proper places; but they are generally a sort of make-shift. They may be the receptacle for *Orchids*, for stove plants or greenhouse plants, and therefore can scarcely be recognised, except as the appendages to the principal buildings whose plants are for the time being tenants there, in which case the management of the houses to which they belong will regulate them.

Frames in general are for plants

not quite hardy, and for hardy plants in pots, for it must be kept in mind that plants which would stand all ordinary winters in the open ground, might be easily killed in pots if exposed, because a frost that would not enter the ground an inch will freeze an inch through the side of a pot, and of course freeze the tender fibres that grow

round the side, so that we have no business to pot any thing unless we plunge the pot or keep it in a frame; but there is an advantage in keeping even hardy plants in a frame, because by excluding the frost they receive no check, and many will continue to grow all through the frosty months.

THE FORCING GROUND, ETC.

Apricots.—Continue the temperature about 60°; water as often as the soil shall appear dry; give air when it can be done without lowering the heat.

Cherries.—These may have air, but no check; there must be no other change in the temperature but the five degrees which will come with night, for there must be guess-work at making up fires and closing houses at a venture.

Cucumbers.—Keep the heat up to 65° to 70°, and if there be any decline take away the spent dung outside the frame, and replace it with fresh hot stable dung that has been prepared for the purpose; when the shoots are too rambling, prune them back a little, and especially if there be no fruit. In this case you may take off the branches to within three or four joints of home where they started from. The branches have to be laid on the bed in the best direction to fill it up soon; cover warm at night. Those in the stove that are trained up the rafters must be carefully fastened, as there is considerable weight to bear; and water must be freely given when they show the least

symptoms of flagging, and the water must be of the same temperature as the house. Do not allow more than three or four fruit to be swelling to a good size at once if you desire large fruit.

Figs will hardly get too much heat in the stove, but if in a house by themselves, let the heat be 60° to 65° by day. They do well in pots in the hothouse.

Melons.—Keep the heat of the hotbeds up to 65° to 70°, by lining the beds with fresh stable dung as often as they decline; and pay the same attention to the plants as to Cucumbers; the treatment is, in every respect, similar, but that the Melon will bear a higher temperature. Three fruit to a vine are plenty to be swelling to any size at the same time, if fine fruit are required.

Peaches must be kept at an even temperature, and have no sudden change; air must be given carefully, when it can be done without lowering the atmosphere too much, for it must never be under 60°, and may be 65° to 70° without the least danger. Syringe occasionally.

Plums require much the same

treatment as stone fruit in general; like the vine, they can be forced to anything, and do just as well without forcing at all; but the earliness will depend on the heat kept up, for they will not bear a change.

Pines.—Keep up the temperature to 80° by day, 75° to 70° at night; give water freely, and air when it can be done in the warm hours of the day. The Pine Apple is not very dainty as to soil, manure, heat, or cold, so it be above 55°. Mr. Barnes, of Bicton, said once, by way of enlightening the gardening world, "I cannot inform you how strong, or to what extent the manure-water ought to be applied to plants of such and such an age, size, or variety, so much depends on a variety of circumstances." Of course the young gardener profited greatly by this. Mr. Barnes, however, does tell us that he keeps the temperature down to 55° in short, dark days, and up to 75° the long, light days. We have been into John Wilmot's houses when some hundreds of Pines were fruiting, and the temperature was 90°, with air at the top, and Vines on the rafters, and no one fruited with greater uniformity and certainty, nor had cleaner plants. And we have ourselves fruited Pines in a common dung bed, where, with all the care we could bestow on them, there was a good deal of change; but the danger of tampering with the Pine is in giving any sudden check, for the scale, the bug, the red spider, and all the entomological pests of the Pinery, like the vulture over a sick animal, are ready to com-

mence their ravages the moment a plant is affected, and a sudden check while growing is the most likely to cause disease.

Strawberries.—These are commenced at such various seasons that there is scarcely any direction to give for particular months; but as there is but one mode, begin when we may, this month is as good as any other. The plants are, of course, well established in six or eight inch pots; they are first taken into greenhouse temperature, after ten days or a fortnight the heat is increased, and when the fruit is set they may be kept pretty warm without danger; but when they are growing, they require a good supply of water, and when the fruit is swelling, a watering with liquid manure will help them. They should always be near the glass, and near where air can be given occasionally. And while upon the subject of Strawberry forcing, we may slightly notice that, according to the mysteries and difficulties with which professed gardeners contrive to surround every operation, it takes two seasons to prepare Strawberries for forcing. First, the runners are to be planted out in beds of rich manure in August. They must be cleaned, and kept free from weeds all through the next spring, and any flowers that appear must be picked off. In the next place, they are to be potted into forty-eight sized pots (four-inch), one, two, or three in a pot, at the option of the grower; in August remove them into flat thirty-two sized pots, and plunged in tan. Here then is one year gone in preparation, whereas, if we take a

lot of four-inch pots filled with good strong soil to the Strawberry beds, when the runners are sprawling about for a place to root in, and peg the strongest into the pots, one only in each, we shall have strong plants filling the pots with root, and only have to cut them off. Of course they will want watering, and only one plant should be allowed to the runner. When the leaves begin to decay, the plants may be trimmed, and potted into the regular Strawberry pots, with good loam and dung, and plunged till wanted. Nobody need be alarmed as to the result; the first season will tell them that throwing away a whole year merely to prepare plants belongs only to the school of mystery. There may not be so many, but the fruit will be as fine. When these have done fruiting, do not turn them out, but let them complete the growth in the house; then turn them out, trim them, reduce the ball of earth, pot them again into pots a size larger, and plunge them to the rim, where worms cannot enter, until wanted for the second time; they will beat those which have been a year doing nothing. Take them into the house a score at a time, or more, for they will bear in succession; let them go in when they may.

Fruit of any kind may be forced in pots; the Gooseberry, Currant, Raspberry, Apples, Pears, anything that bears fruit or flowers. The conditions required are, that the plants shall be well established in their pots; that they shall be taken into the house with a low temperature, 40° to 45°, and be gradually increased to 55° to 60°;

be watered when they get towards dryness, and after setting their fruit, rather liberally, and continued in summer heat until ripe. There is no mystery about these matters; we have to guard against sudden checks, give air whenever it can be done without lowering the temperature, and occasionally syringe in bright weather.

The Vine under glass, whether in pots or on the roof, must have all useless shoots pinched off, and all the fruiting branches shortened to the joint beyond the bunch. If there be two or three bunches on a shoot, which is by no means uncommon, choose which is the best for your purpose, and pick off the others, or you can allow them all to remain till they are past bloom, and then save the best; but unless the fruit is scarce on other parts of the vine, one bunch is enough for each shoot, and all beyond the first joint past it, may be taken off, and the shoot carefully tied, nailed, or otherwise fastened. Let no new branches but those which you want, grow; take them off close to the lowest joint; it is best, in fact, to rub them off before they grow at all in the early stage, if you can make up your mind which to spare. Except when the grapes are in bloom, and after the berry begins to colour, syringe the vines freely, and occasionally steam the house: 60° to 65° is a good temperature until they bloom, when they should be 70° to 75° by day, and may drop down ten degrees at night. As vines may be so forced in succession as to produce fruit all the year, it is impossible that any directions for the month can be right for all; on that account

we rather give a series of general remarks, which may be followed through all the stages. We are now supposing the fruit to be visible, and perhaps in bloom before the month is out; but the Vine, like every other subject intended to be forced, must be begun at 45° to 50° ; in a few days it may be raised to 60° and 65° , and when in bloom, to 70° to 75° by day. If, therefore, the Vine be taken into the house, or rather, the house in which it may be set to work, in the month of October, or November, or December, no matter, attention must be paid to the temperature. In pots the same rules must be observed, but there is an additional care required in the watering. This month you may plant eyes and cuttings in the pots they are to grow in. The cuttings should be three joints, the bottom and middle one under ground, the top one just above the surface. The eye is a bud with half an inch of wood below, and half an inch above it; these should be planted in three-inch pots, and plunged in a tan pit, in a temperature of 80° or 90° below, and above 60° above. The eyes make the best plant. A hot-bed will do equally well as a tan-pit. When these fill their pots with roots, they must be shifted to larger ones, and as the shoots grow, they must be supported, that they do not get broken, and be freely watered as they progress.

VEGETABLES.

Asparagus.—Hotbeds may still be made for the forcing of *Asparagus*, and those already forward must be watered occasion-

ally. In choosing the roots, they should be selected strong, and three years old, otherwise they will yield but middling crops, and small buds. They should be planted as close as they will go together; when the crop comes forward, have a care how you cut it. To have it in perfection, it should be allowed to grow as long as it remains close, perhaps four inches above the surface; this is all eatable, and two inches below is enough for show. Those who cut *Asparagus* with a good long top, will never fancy the little bud at the end of a long hard stick. Another caution is worth attending to; let the weather be ever so bad, let the crop that is coming through have all the light, and as much air as the temperature will allow, for otherwise the crop will be pale and ugly. Lastly, let the water be given with a rose watering-pot, and be fully as warm as the hotbed. This is easily managed with a little water out of the boiler in each pot-full.

Beans, French.—Those in pots must have air when it can be given without too much lowering the temperature, and they must be placed near the glass to prevent them from drawing up weakly.

Kale, Sea.—This must be continued by covering other plants with the pots, and surrounding them with stable dung ready prepared as before.

Sow *Peas* in pots, and place in due time sticks to support them: six-inch pots will do, and half-a-dozen good plants in a pot are sufficient. The earth must be fresh loam, from rotted turfs; no dung; be careful that they do not

flag for want of water. A dozen or two such pots will give a fine dish of peas long before they can be had in the garden. Some sow half-a-dozen peas each in four-inch pots, about the end instead of the beginning of the month, and place them in the greenhouse. These will be useful to plant out in rows, without disturbing the ball, eighteen inches apart, and the rows three feet, as soon as the weather will permit.

Potatoes.—Hotbeds may be made in succession for Potatoes, keeping to the early sorts; weed those already planted, if any, and those which are up must be supplied with fresh earth, instead of disturbing that they are in, to earth them up, nor must they be distressed for water.

Radishes, Salads, and Herbs of all kinds may be forced in common hotbeds; all the Herbs may be taken up from the open ground, potted, and placed in the frame, or they may be put in the greenhouse, and ultimately in the stove, and the value of a little foresight may be estimated by the difficulty of getting fennel or mint when so much in request in early spring. Many of the Herbs in great demand may be sown in a declining hotbed, Basil among others that are too tender to stand hard frosts. Radishes may be sown still, with or without Onions or Carrots. Slight hotbeds are never better employed than in helping one to small crops of Turnips, Carrots, Lettuces, small Salads, Radishes, &c.; but many things might be placed in the greenhouse, stove, or forcing-house, especially pots of Herbs.

Mushrooms are to be had all

the year, and can be grown anywhere. One simple way for those who have stoves is to fill a pot with droppings of horses, put a bit of spawn in as large as a hen's egg, half an inch of soil on this, and plunge it in the tan-pit; but you may make a heap of droppings in any corner of the stove, and when it warms a little, put spawn into the surface; cover it with an inch of loam and straw over all of it; you will soon have Mushrooms.

If you have to get them from a cellar, you must have a larger body of droppings, to ensure a more general heat; but there need never be a difficulty about obtaining Mushrooms; nor is it of any consequence what time of the year they are wanted. Grown in pots they are curious, as those who saw them at the Egyptian Hall will remember; they were exhibited by Mr. Upright, of Morden Hall, and had the appearance of Mushrooms piled up over and above full.

FLOWERS.

American Plants generally require plenty of water as they develop their flowers. Rhododendrons, Kalmias, Rhodoras, Daphnes, all like plenty of moisture when they fairly start off. Any that have got forward enough to remove to the conservatory, should be turned out of the forcing-house to make room for others.

Azaleas.—Those first placed in the house are, perhaps, bursting their flower-buds; they must be well supplied with water, and others may be taken from the greenhouse to the forcing-house.

Azalea Indica, likewise, wants

an abundant supply of water while the flower-buds are swelling. The young wood of the Azalea is very apt to grow out beyond the flowers. These shoots must be taken off at the base, and make excellent cuttings; but if left on, the plant will be totally spoiled in appearance, and the flowers actually hidden by new shoots.

*Camellia Japonica*s are in flower with little or no forcing; and these form noble ornaments in the conservatory, and there are plenty to succeed those which are now in bloom; still any that are being hastened must be liberally watered.

Deutzias, *Lilacs*, *Roses*, and other flowering shrubs, may be put into the house to succeed others, but they must not be subjected to forcing heat for ten or twelve days. Any of these that are ready must be turned into the conservatory.

Geraniums that are forcing must be occasionally syringed; and for that purpose, had better be kept in the forcing-house until fully in flower. If there be any attack of the green fly, fumigate directly; it will do nothing harm, and is generally a preventive to those not affected, and a cure for those which are.

The greenhouse and stove are, where forcing is going on, a sort of *omnium gatherum*; all the plants to be forced travel through the greenhouse to the stove in ordinary establishments, and among other things, the bulbs, which form so conspicuous a feature in the spring flora. These must be followed up as they get forward with others, from the store of potted subjects which are

plunged till wanted; and those in the hothouse must give way for others that have been matriculating, as it were, in the greenhouse.

Roses.—Whatever is designed to be forwarded of this family, must be placed at once into the forcing-house from the greenhouse, and all those which are advanced must be well syringed occasionally, until the buds show colour. Anything like blight, however trifling, must be removed by brushing off, if only partial, or syringing with tobacco-water, and afterwards with clean water, if the bloom be not too forward, or, if necessary, by fumigation; remove them to the dwelling-house or conservatory before they are full blown.

Tulips and other bulbs only require plenty of water, and, like most other subjects that are forced, should be removed before they are in full bloom, as all flowers, no matter of what kind, feel the check too much if allowed to perfect their bloom in heat. Moisture is necessary in the forcing-house for nearly everything; water the pipes, or flue, and the floor, to produce this, occasionally; but always take care that the heat is not below 60° when this is done.

Be careful of all the plants that have been forced: let them complete their growth before they are turned into the open air; for they will then have their rest, and be ready to be shifted into pots a size larger by the time they are started again, and they will naturally commence growing earlier, without so much forcing. Plants used to forcing, come much better than any will the first year.

STOVE OR HOTHOUSE.

INDEPENDENTLY of this structure being generally used for bringing forward plants that do not belong to it, there are the ordinary inmates to look after and attend to.

Amaryllis.—This beautiful tribe of plants wants to be well watered while growing, and to be entirely without moisture as soon as the leaves begin to decay, and they may absolutely rest in the coolest part of the stove till they start of themselves, by sending up the sheath containing the bloom. As soon as this is perceptible in any one or more, let the ball be turned out, the loose stuff rubbed off, and re-pot them in pots a size larger, and good rich loam two parts, and decomposed dung one part. If this appears too adhesive, or clammy, add silver sand to lighten and open the texture; place them near the glass to prevent their drawing up. Full-sized bulbs that have perfected their growth, and had their rest, are sure to flower; those not full-grown will only push leaves, but they must have the same treatment. Some of those which have rested will be showing their disposition to grow several different months, and a good collection will give flowers more than half the year upon some of their plants. When they have perfected their growth, and require rest, we recommend the pots to be laid on their sides, for their more complete seclusion from moisture, accidental or otherwise; but of course, when at rest, they must

be frequently examined, because the instant they start, they want moisture and additional nourishment by fresh compost, and more room.

But plants in general require rest, and this is not sufficiently attended to generally. It is very easy to see when a plant has completed its season of growth; for no matter what it is, the leaves of the last shoots get the full size, and assume their right colour. They do not, like the *Amaryllis*, want absolute exclusion from light, and heat, and water; but they may go to the coolest part of the house, and may go, for a considerable period, without any more moisture than they get when the house is steamed. They show their disposition to move very distinctly; and this is the moment for re-potting, and watering, and pushing on the growth.

Climbing plants should, during their period of rest, be pruned and trained, some branches be released from their position, and regulated, some removed altogether, particularly when there is an opportunity of taking away old wood, and occupying the space with younger shoots. The *Passifloras*, *Ipomeas*, *Allamandas*, *Echites*, *Stephanotis*, and such like, will always be greatly improved by pruning and training, after the growth is perfected, and you see what of the shoots and branches can be the best spared or retained.

Gardenias will do better in a

common hotbed than in a stove, unless the temperature be high, and the atmosphere moist. They may, however, be plunged in the tan-pit, and be frequently syringed with great advantage, if the house be kept necessarily dry for other plants; but moisture will rarely hurt plants if the heat be well kept up.

Gesneras and *Achimenes* also want, now, heat and moisture, and to be near the glass, to prevent them from drawing up weakly. Having had their season of rest, the bulbs want fresh compost, and should now be shifted to the pots they are to bloom in. The soil must be loam, peat, and decomposed dung in equal parts, and if they have begun to grow, the ball must not be disturbed.

Hoya carnosa is an exception to the rule of losing old wood. The bloom of this year is on the seat of the flowers of last year, and consequently, the more of these old stumps we can retain, the more bunches of flowers we secure, for they are all certain, besides which, the younger wood will add a few yearly to the number. In this the *Hoya* family are peculiar.

Ixora coccinea is now showing flower-buds in some cases, and should be frequently syringed, and great care taken to keep it clean, for the mealy bug is a dreadful enemy to the plant, and if it gets among the buds, the head of bloom will very soon be destroyed. The best possible means of getting rid of this pest, is with warm soap-suds and a brush (like a shaving brush), but some of these are too stiff; with this, if proper, you may wash them out of all the

corners, and by following it up two or three days, the plants may be made as clean as if the bug had never been there. There is no plant harbours them more than the *Ixora*, nor that is so soon spoiled if neglected; syringing with soap and water, and afterwards with clean warm water, will complete the cleansing, but heat and moisture are now necessary to the health and good growth of the plant.

Poinciana pulcherrima is a plant that requires some attention to be grown well; it is apt to run up a considerable height, except when stopped immediately after the cutting is rooted, and the lateral branches are also stopped as soon as they have two clear joints to leave for other branches; and this stopping may be continued until there is something like a bush. As the flower comes at the end of every mature branch, it forms a very noble object when seven or eight or more branches perfect themselves. It is the bractea, or scarlet leaves immediately below the flower that make the show, the bloom itself being very secondary, in fact, almost insignificant for so fine a plant.

Hard-wooded *Stove Plants* should be pruned when they have done flowering, and they will bear cutting in pretty close, because, as they mostly bloom on the young wood, they may be kept in good shape and moderate dimensions, nearly as well as the *Rose*. *Brugmansia*, *Hibiscus*, *Clerodendron*, *Franciscea*, *Gardenia*, *Ixora*, *Luculia*, and such like, will all bear pruning, if done when they have done flowering, and before they make their new growth.

All the plants that have filled their pots with roots may, without exception, be repotted in vessels a size larger, and cuttings that have rooted well may be potted. Stove plants require a good deal of attention with regard to water-

ing. In heat, plants absorb a good deal if they are growing, and they should be looked over daily, to see if any are too dry; above all, when they are watered, it should be effectually; the moisture must go right through the soil.

CONSERVATORY.

THERE is no period of the year in which this department should be so well sustained. Camellias in full flower, early Tulips, Crocuses, Jonquils, Hyacinths, Campernells, Hepaticas, Polyanthus, Primroses, Chinese ditto, Lilacs, Deutzias, Geraniums, Roses, Hydrangeas and Rhododendrons, and many other subjects forced and natural combine to make a splendid show. Several kinds of Iris, especially *pumila*, add to the richness of the borders under glass, and the conservatory ought to look strikingly gay. Many noble plants, a little hastened in their bloom, contribute to the floral beauty of the place; many of the Acacias, with their golden flowers of various shapes. The Hoveas, but little forced, are now in their beauty.

The gardener should look round the houses, and bring in everything that exhibits flower, and set it where it would be most effective. The form of the conservatory and the various stands and stages must guide the man who undertakes to set it all to rights. The plants may be in groups on the stands, tables, or floor. The last was said to be the best for all the tall plants, and where plants are

nicely grouped on the floor of a conservatory, they look well.

The conservatory must be swept clean as often as the leaves fall or any other litters are in the way, for here cleanliness is an essential qualification; not a dead leaf nor the dropped petals of a flower should be seen. When pots of flowers are sunk in the beds or borders, others with succession plants should be prepared to take their places when the bloom has decayed, or the plants have become shabby. The one has then merely to be lifted out and another put in its place.

In *watering* the plants in a conservatory there must be no indiscriminate distribution; we ought to be convinced that the plants want it before we administer the draught; they should be individually examined, and none given until really required. As this month is liable to frosts, and the conservatory generally a large building as compared with other houses, or, at all events, more lofty, it must be protected against all weathers by fire heat. The temperature never need be above 55°, though by day, if shut, it might reach 60°; but these are

the times to give air, and it can be done by keeping up this fire heat, and opening windows. A house that would be otherwise of a high temperature, may be reduced by giving very little air at the top of the house; but this must be watched at intervals.

GREENHOUSE.

FEBRUARY is an interesting month in this department. The Acacias and Hoveas are showing their advancing buds, and some are in flower. Geraniums are growing fast. Camellias, which form a great feature in a mixed collection of plants, and do not come in bloom all together, give us many flowers. Cinerarias are in bloom partially if not fully, and many other plants assist to make the shelves and stages lively. Great pains must be taken now to give abundance of air, but all draughts must be avoided.

Climbing Plants must be carefully trained, and, if necessary, lose some of their useless or superabundant shoots. *Tropeolums* and other delicate subjects should have their branches directed day by day, for if they are left to cling to anything, or to tangle their own shoots, there is great difficulty in unwinding them, or releasing the tender shoots without damage. They must be placed near the light and have plenty of air.

Seeds of all kinds, requiring greenhouse temperature, may be sown in pans or wide-mouthed pots. It gives the young plants the whole summer to get established, and enables the cultivator to get them into good order to stand the winter.

Azalea Indica now begins to

swell its buds, and indicate the nature of its bloom, whether scanty or abundant. Let the earth be stirred on the surface, the loose soil thrown out, and top dressing of fresh earth be put on. They will now require plenty of water, as they swell their buds, and until after they bloom. The more air they, as well as other greenhouse subjects, have on mild days the better. All the small plants that are growing up will require shifting if their roots have reached the side of their pots. Seeds may be sown in pans or boxes or wide-mouthed pots, and when they begin to vegetate they must be shaded.

Cinerarias from seed should be selected for their good qualities, and all middling and common ones discarded. The best, that is, those which are most perfect in the circular outline, broad in the petal, large in size, and brilliant in colour, may be saved for propagation and for seed, and seed may be sown. Temperature by day 45° with air, 50° without, 40° at night.

Fuchsias may be top-dressed, and the young shoots that are not wanted may be struck as soon as they are an inch long; except for increase let no inward shoot grow. Small ones that have filled their pots may be shifted to larger ones, and all the established plants

should be repotted as soon as they begin to grow; but before they are allowed to grow at all, they should be pruned into a goodly shape, and every morsel of weak wood be removed. Those that have been kept in pits should be removed to the greenhouse, pruned close, and set to work. Sow seed.

Primula Sinensis.—Those from seed must be examined, and the good ones selected, or, if they predominate, the bad ones rejected. In this tribe of plants the fimbriated edge seems a decided character; double ones are scarce; but the most rich and beautiful have almost a double row of petals, for they overlap each other considerably. The largest, the brightest and purest colours are most esteemed, and unless the flower be circular it is worthless. The stem should be tall enough

to throw all the flowers above the foliage. If the edge be smooth, with no indentation, and perfectly circular, it would be highly esteemed; but all the smooth-edged ones hitherto raised are deeply indented between the divisions, and notched as deeply in the centre of the petal. At all events, the diminutive flowers, of all colours and characters, may be discarded, unless the plant and foliage are small in proportion, and none but circular flowers, whether fimbriated or plain, need be kept. Seed may be sown this month; but in saving seed it should be gathered from good flowers only, and this plant may be propagated by parting the root after flowering as soon as the side growth commences, and gets strong enough to pot attached to a bit of root: they require support.

HEATH STRUCTURES

Want little else than examining daily, to give water to the plants that require it, giving all the air that can be let in when the weather is mild, attending to a

succession of cuttings, potting off those which have rooted well, and changing such of the plants as have filled their pots with roots. Seed may be sown.

GERANIUM HOUSE.

Geraniums should have the ends of all their longest and strongest shoots pinched out to cause laterals to grow, and make the plants bushy, and keep them close and dwarf. Those who exhibit after the system at the Park and at Chiswick will begin torturing the main branches by tying them out

and down to the form they want the plant, but we have a mean opinion of the skill of a gardener who cannot grow a handsome plant without such mechanical aid; nevertheless, as even a vitiated taste is catching, it may be necessary to tell those who would imitate the itinerant *Geranium*

exhibitors, that they must, by means of stakes and ties, fasten down the main branches nearly as low as the edge of the pot, and so place them as to point outwards all round, and by continually topping all the shoots side branches will be multiplied, which in time will be sufficient to throw up a hundred blooms, all of which will be incapable of sustaining their own weight, and must therefore be supported by as many sticks and ties. Many will be ready to take their shift now, others at the end of the month, but if they are kept stopped and growing, they may be got up to the size of a moderate gooseberry-bush in time, merely requiring to be shifted into new pots as they fill the old ones with roots. A good deal has been said and written about the soil for Geraniums, but there is no compost to beat two parts loam from rotted turfs, one of turfy peat rubbed through a coarse sieve, and one of thoroughly decomposed dung, fairly rotted into mould. No general compost can beat this, although many direct bone-dust and other nostrums equally exciting, and probably it may answer the purpose of sending up the spindly shoots which have to be supported, but cannot be good for that wholesome growth and strength which can alone do the gardener credit and the employer justice. On the least appearance of the green fly let the house be fumigated with tobacco-smoke, and the plants may be syringed with great advantage and shut up close. If the house, however, be at all damp, get up the fires pretty warm, and give air at top. Seed-

ling Geraniums will require potting into larger pots, but we never recommend stopping or checking them in any way. To know the real value of a seedling, we must let it grow as it will; we then see its natural habit, its disposition to bloom, the style of its foliage. If all these be bad, no matter how fine the bloom. If the plant be strong, the side shoots stout, the stems firm and straight, the truss bold, and the foot-stalks elastic, there is something to admire; but none of these qualities can be seen if we check the natural growth. As a general rule for the growth of Geraniums, the pots must be changed to larger as soon as the present ones are filled with roots, and this must be continued as long as we want the plant to grow and not bloom. Seed may be sown this month, or part this month and part next, and placed in the shade as soon as the seed vegetates, for the sun would dry them up.

Cuttings that have been well rooted may be potted singly in sixty-sized or three-inch pots, using the compost we have mentioned for shifting; these should be watered to settle the soil about their roots, and be kept close for a day or two, but as soon as they recover keep them near the glass, and be particular that they are watered before they get dry, as they will grow fast.

In growing specimens without sticks, always remove weakly shoots, and also shoots that crowd the inside; for it is impossible to have robust wood, good foliage, and handsome growth, if we allow a plant to get crowded. Remove these shoots while young.

CAMELLIA HOUSE.

Camellias.—As some of these have done blooming prune them into shape before they make their young wood, and if you have abundance of room, let them on no account be crowded. Shorten any of the awkward branches to the best sound eye about where you want them to start from. There is a risk in shortening them to the dead-looking old wood, as they frequently resist all coaxing to make them break. Seeds of *Camellia* may be sown. All the plants in or near bloom should have the spike immediately above the flower taken away unless you want to lengthen the branch; generally speaking, we desire to prevent these plants from rambling, and besides this, if a shoot be allowed to grow beyond the flower the bloom is injured by the demand upon the sap, and besides being less than its proper size, it is often imperfect. Rub off, or pull out, any shoot that is coming where it is not wanted as soon as it can be removed without damaging any bud or flower, and before it makes any progress in its growth. It is very essential to the health of the *Camellia*, that all the inward shoots be cut entirely away and that growth be encouraged towards the surface; by taking care while young to keep the branches from rambling, they may be kept well furnished towards the bottom instead of showing bare branches. There is no objection to a single stem and a head to form a standard; on the contrary, a well-formed

tree makes a good change in a collection of plants; but of all plants there are none so inclined to grow ugly if left to themselves as the *Camellia*; in almost all cases some one shoot or more at the end of a branch makes a push, grows very strong, even stronger than the wood it shoots from, takes the lead completely, and if left alone forms a very ugly strong branch out of all character with the rest of the plant, and when it sets for bloom the gardener cannot part from it. When a plant has been overlooked and done this, mark it for amputation the moment the flower is ready, for whether it be a top shoot or a straggling one sticking out of the side, it is equally objectionable; but if the instant an end shoot begins to move you carefully pinch it out, the vigour of the plant is directed to the branches, or rather the buds lower down, and the shrubby character is maintained; but no matter where a shoot is pushing, before it grows a quarter of an inch judge whether it will improve the plant, and if not, rub it off, or remove it somehow, for every shoot rubbed off strengthens those that remain, and by stopping those which are at or near the end of branches, (where, by the way, they are seldom wanted,) those lower down will be stimulated. Again, those shoots which point inwards cannot be useful, so they must share the fate of the other rejected shoots. Nothing is less attended to than this simple thing. Go into

any house of Camellias, particularly those of any size, and it is rare to find a good specimen furnished well near the ground; and it may be all traced to allowing the plants at first to have their own way, instead of checking the growth where growth was not wanted, and removing useless or ugly branches.

WINDOW GARDENING.

As plants now begin to grow again, look to those that may require shifting to larger pots, for good room is essential to all plants, and not to one sort in particular. Plants will bear more water now, and generally must have all the air that can be given.

Fuchsias.—Prune off all the weak shoots, cut back the strong ones into a reasonable shape, so that their new growth may be handsome.

Geraniums.—Pick off all the dead leaves, take the ends off any branches that are growing too fast, and prune off anything growing inwards, or if there be any warm showers, put out the plants to receive it all, and return them again when evening or cold weather approaches.

Bulbs in glasses and pots, whether Tulips, Hyacinths, or others, require plenty of water. The glasses must be filled up as fast as the Hyacinths absorb it, and the pots must never be allowed to get dry.

But, avoid allowing anything to stand with water in the pans. It is full of mischief. The plants will at first sicken, then drop their leaves, and lastly die, if the evil be not attended to and removed.

Wardian Cases want but little attention. The plants will show

when they want water, but that is very seldom. These are now better understood than they were at first: strange notions about being air and water tight got abroad, and of scores who started Wardian cases, scarcely two were alike. They are neither more nor less than small greenhouses. The discovery that a plant would grow in earth at the bottom of a bottle hermetically sealed was trumpeted forth at the same time that Mr. Ward's model greenhouses were noticed, and the horticultural world "put that and that together," and the idea that a Wardian case was to be air-tight and water-tight was generally entertained. The great variety of these things got up in consequence is puzzling. Cover a pan full of mould with a bell glass, and you have a Wardian case; get a model greenhouse, or conservatory, with all its appurtenances, and you have a Wardian case. The great object of the Wardian case was to have a winter garden in a dwelling-house in the heart of London, and the only attention they require is the removal of dead leaves and plants, when any decay, and the substitution of something that will do better. The Melocacti, Mammillaria, and all slow-growing succulents, are well adapted. Some of

the hardy small ferns will do well ; and, generally speaking, subjects that perfect themselves small, or grow slow, are the best adapted. These cases may be seen in great variety at the Covent Garden Market, with and without plants ; but although, for the appearance of the thing, some grow things in pots within these Wardian cases, it is wrong : they involve a good deal of care and attention, and require the case to be often opened, which is a disadvantage. In London, they keep the plants clean, and the London smoke cannot affect the plants inside. If you have to open them for anything, choose a bright, clear day, and do the work quickly.

MARCH.

PLEASURE GROUND AND SHRUBBERY.

REPEAT this month the mowing, bush-harrowing and rolling of the Lawn, and go on with the pruning of shrubs if they be not all done; but we may go round shrubberies and pleasure-grounds pretty often and generally find something to do, especially in the pruning way; some ugly shoot that has escaped our notice, some branch that the wind has broken or bent, or some favourite shrub that we fancy we can improve.

Planting ought to be out of the question now; yet we should not hesitate to fill up a vacancy or add a few specimens, or thicken a clump if necessary; and especially with some Evergreens that have not started yet on the new year's account.

Laying down of lawns and making gravel-walks are much better done in the autumn; but as that is gone, we have no choice but to do such things now or leave it till next season.

Pinetum.—It would be well to look through all the specimens, and if any of them have not done well, and indicate bad health, better remove them and get others. There is no pleasure in seeing a thing merely exist and not thrive; and if the Coniferæ do not go on just as well after planting as before, they will linger even if they live, and will not be so well at the

end of three or four years as they were before moving. The first loss is the best. As the rejected ones are not quite dead, it may be worth while to prune the damaged part of the roots and give them a chance where they are of no consequence.

The Arboretum should be examined in like manner, and if any of the trees are not doing well, see what is the matter. Get rid of a doubtful character—put up with the loss of it, and get a healthy one in its place: always keep an eye on the growth of the specimens, because you can prune off objectionable shoots, and have much more command of them than you have with the Coniferæ.

Ornamental water must be kept clear of weeds round the shore, and the growth of handsome water-plants be encouraged. The *Mimulus* is rather a pretty plant round the sides, and if they take to their situation kindly they will frequently spread a foot inwards on the top of the water and flower continually during the summer; they must be planted on the side, even with the top of the water, or if there be a shallow side, the plants can be sunk in their pots to just below the surface.

Rockwork.—Look to all the ledges on which anything can

grow, and furnish them with something; but in time these places will furnish themselves. The dead leaves and stalks of anything that has decayed may be carefully removed, and whatever vacancies there are in the receptacles for plants should be filled up; double Wallflowers, various Lobelias and Campanulas, sundry Alpine plants, and many herbaceous plants, in pots, might be transferred to the vacant spaces.

The verges of green turf, so apt to encroach upon the gravel-walks and inwardly upon the beds, must be cut square and clean with an edging-knife, and other edgings of various plants must be mended or trimmed if grown out of form.

It is the last month for repairing omissions in planting, therefore the whole plantations ought

to be surveyed, with a view to the removal of any plant that is unseemly, and the planting of any that would be an ornament. It is also the time for grafting any modern variety of any subject on old ones that may be improved; such as new Thorns may be grafted on the common quick-hedge, newer Rhododendrons on the common Ponticum, Arbutus of different varieties on the common Unedo; and many other changes might be made on the various shrubs and trees, in a well-ordered shrubbery and pleasure-ground.

Trees and shrubs in bloom: Laurustinus, Pyrus Japonica, Almonds, Cornelian Cherry, Laurel, Portugal Laurel, Scarlet Maple, Spurge Laurel, double flowering Peach.

THE FLOWER GARDEN.

Alpines are now upon the move, and must be kept very clear of weeds, and not crowded with other plants. Those in pots should have the surface stirred, and be top-dressed with fresh sandy loam. Those on rock-work should be also cleared of all incumbrances.

Anemones, in the open ground, planted in the autumn, must have the earth stirred between them, the lumps broken, and the soil pressed close to their stems. Those planted in February must also have the surface lumps broken as the plants come through.

Annuals, of all sorts, but especially those called *Hardy*, may be sown in the places where they are to bloom; or some of them that

bear planting out, may be sown in a bed, to be transplanted hereafter. Sweet-peas, Lupins, Convolvulus, Coreopsis, Indian Pink, Nemophylla, and many others, will do well in small patches, or, if wanted, in large beds. Three or four plants in a patch are enough, except Peas, which require ten or a dozen to form a good bush.

Annuals, Tender.—Stocks, Asters, and other tender subjects, may, nevertheless, be sown in a warm border, towards the end of the month, and will transplant well; but they ought to be raised in a hotbed, and would be ready to plant out much sooner, either in beds or borders. It is, however, a mistaken notion that tender

annuals will not grow well in the open borders; for the most delicate, perhaps, of all, such as *Rhodanthe Manglesii*, whose stems are not thicker than a thread, will bear sowing in the open air, and will not only grow, but complete their flower and seed. Another class of tender annuals require heat, and a continuation of it, to grow to perfection. Balsams and Cockscombs are of this kind. Although the Balsam may be trusted to the open border, it will not grow nearly so large, nor bloom so fine, as in pots, with plenty of heat, moisture, and light.

Auriculas, in the open beds and borders, are confined to the original species: the florists' varieties will not stand the wet and cold of our winters.

Azaleas will be improved by slightly forking the surface all over the bed.

Carnations, *Pinks*, and *Picotees*, in beds, must be often examined for slugs and other vermin: stirring the soil frequently discommodates vermin of all kinds, besides giving an opportunity of destroying them. If there be any symptoms of the wireworm, get a few carrots to thrust into the ground near them. The wireworm will leave almost everything for the carrot; they are also partial to the common daisy root, and frequently may be caught by pulling up one now and then. Some plant an edging of daisies round the beds of Carnations, Picotees, and Pinks and it is a great safeguard.

Chrysanthemums.—Those in the ground are making a number of shoots at the bottom, and those who intend to exhibit cut flowers, must take off the strongest of

each, with as much root as they can, and pot them in rich soil. Four-inch pots are large enough to begin with, and they must be set on a good hard bottom of some kind, which the worms cannot penetrate. These plants will be good for nothing as plants, because the stem must be allowed to run up its own way. One or two of a sort are enough for exhibition purposes. The *Pomponeas*, which are the smallest, want some care in the growing; they should be topped, and they will throw out side-shoots. Those anxious for stock, may make as many as they please, by the small shoots at the bottom; and when the large sorts are to be shown as plants, there must be just the same pains taken to shorten them, and induce side growth.

Dahlias should be disposed of according to their object. If propagation to any extent be wanted, they must be turned over to the nursery; but for private use, they need only to be cut up, as soon as the eyes show, into as many pieces as there are eyes, and be planted, like potatoes, three or four inches under the surface.

Herbaceous Plants, comprising some of the most beautiful objects in the flower-garden, such as *Delphiniums*, *Hepaticas*, *Peonies*, *Phloxes*, *Aconites*, *Campanulas*, *Columbines*, *Double Crowsfoot*, *Lupins*, are all advancing rapidly. If it be necessary to remove any of these, it must be done carefully, or they will suffer from the operation: those which are where they are to flower may have the ground stirred close to their roots, and old stems, dead leaves, and all decayed portions taken away.

Hollyhocks require the remains of old stems cut clean away, all the dead leaves removed, and if there are many side-shoots coming, they ought to be broken off. One good heart is all that should be allowed to grow: leaves that are damaged by vermin, or otherwise unsightly, must be taken away. If a plantation of *Hollyhocks* is to be made, it should be done towards the end of the month; three feet apart in the rows, and four feet from row to row, is a good distance; and we prefer, as in the case of *Dahlias*, to drive down straight stakes in the proper places before we plant, and to drive down the stakes, or to cut them down, all of one height—six feet, or five; then plant the *Hollyhock* as close to the stake as possible, that, as it grows, it may be made fast, instead of being at the mercy of the winds.

Pansies.—Look well over the beds, and see that there is no lurking slug or other enemy under the foliage. Remove all yellow leaves; and if any branch has straggled far from home, pinch it back. Seedlings may begin to bloom, if the weather be mild; and as soon as you see an inferior one, pull it up, and throw it away.

Polyanthuses and *Primroses* are now in danger from slugs and snails: it is impossible to be too careful in examining them, for the vermin will bury themselves just under the surface of the soil; therefore it should all be stirred up round about them. With seedlings be as particular to get rid of the bad as you are with the *Pansies*.

Ranunculuses planted in autumn are up and strong, almost sending

up their bloom stems; and they must be covered against frost with litter, or hoops and mats, otherwise the frost will assuredly spoil the flowers. Those planted last month will be breaking the ground about the last week, and then all the lumps must be pulverized and pressed close to the tubers and stems; for if these were allowed to grow on just as they break the soil, their tubers would be exposed between the rough lumps they throw up, and they would be open to the attack of frost and vermin, both of which would damage the tubers in their swelled and tender state.

Roses, in the Flower Garden, should now be pruned; *Tree Roses* in particular, as these are ugly or handsome objects according to their treatment. First cut out every weak shoot close to the base; next cut back or clear away all the branches that grow inwards, so that the interior of the head shall be open and free from growth of any kind. The form of the head is next to be considered, and the branches should be cut accordingly, either half-way back, so that there should be something like a head, or, if you please, back to the lowest one or two eyes. Make the head the skeleton of a good form, making allowance for the new season's growth. *Dwarf Roses* should be similarly treated, only that you want a bush instead of a head; but never leave any of the weak shoots that clog up the inside—clear them all out. How low you may cut them down, is a matter entirely depending on taste.

Tulips.—The best bed should be covered up as much from rain

as from frost; for the plants, having opened their leaves a little, form a complete receptacle for water, which can do no good, and may, in spite of covering, freeze solid. The soil has been stirred about, and laid close to the stems of the plants, both in the outer beds and the best; if not, no time must be lost. This should always be done when the spikes have come through, and before they open their leaves; for the earth is very apt to get into the heart, and to discolour the bloom, unless removed before the bud comes up.

If there be any lawn in the Flower Garden, the mowing must be attended to; for the coarse grasses grow in winter, and, unless kept down, disfigure the lawn. Box edgings should be looked over, and mended, if deficient: other borders also require attention. If there be any vacancies, lose no time in filling them up. Gravel-walks may be picked up, weeded, cleaned, and raked, prior to rolling, which will finish them off like

new ones; though, if other matters press, it may be left till next month.

There must, however, be a general survey of the garden: whatever climbers may have given way from their fastenings, must be attended to; the fastenings of roses to their stakes, or against the walls, must be repaired. All labels that have been defaced, or come off, or been damaged, must be made good; the borders must be forked, cleaned, and raked smooth; and the whole place must be made tidy and neat.

The tender or half-tender things that have been matted or mulched may be released. Fuchsias that have wintered it, may be pruned tolerably close in. Hydrangeas may get rid of their covering or their mulching. Shrubs that have been matted have gone through the worst of the winter; and the Crocus, Hyacinths, Early Tulips, Narcissus, Campernells, Hepaticas, all remind us that the winter has, or ought to be, gone.

THE VEGETABLE GARDEN.

Artichokes.—Level all the ground round about the plants, and dig it over carefully; examine the shoots that are growing from the stool, and having selected the two, three, or four strongest, remove the others,—for each shoot will make a plant; lay the stool bare, low enough to see what you are about in taking off the slips. Let the earth be closed again about the old plant, and the slips may be used to make fresh plantations. Let these be made in a good open

situation, where the ground has been well dunged and dug. Plant them in rows, four to five feet apart, and three feet from each other in the row. These will come into fruit about the period that the old ones leave off bearing. The soil may be top-dressed.

Artichokes, Jerusalem.—These may be planted; and any that have not been taken up may be dug if wanted; the finest being stored for use, and the smaller ones planted again. The rows

should be a yard apart, and the plants a foot from each other.

Asparagus.—The beds should now be forked over very carefully, so that the earth may be loosened, but the crowns not damaged. After raking them smooth, clear out the alleys, and throw out the loose crumbs over the surface. Trim up the sides of the beds; make new beds if required; and here we may point out the different methods adopted of late years:—First, they may be grown in single rows, two feet apart, in which case a ridge is formed over each row and a hollow between; secondly, they may be grown two rows, a foot apart and three feet vacancies between them: in this case the ridge is wider and more flat at the top; thirdly, they may be in beds, four rows in a bed, and the rows nine inches apart: this occupies three feet, and allowing nine inches outside the rows, the beds are four feet six inches wide, and there must be alleys of three feet between them. In planting *Asparagus*, no matter which of these plans be adopted, the ground must be first made up for it: the soil must be enriched by one-half rotten dung, full eighteen inches deep, and the whole surface levelled; draw lines for the rows, and mark the ground. The plants, which should be two years old, must be then spread out on the surface with the crowns of the plants on the line; and when the row (or rows) is completed, cover them three inches above the crowns with soil taken from the alleys, that is to say, the vacancies between the rows; or, if more than one row in a bed, the vacancies between the beds, which will of

course be a trifle lower for the stuff taken off, and will mark the beds. The plants will require no further earthing-up for the first year.

This is the most simple and efficacious mode of planting new beds. Many will draw a trench the length of the row, and put the plants in as nearly upright as they can; but when the roots are spread on the surface and covered three inches with soil, they grow much more freely, and continue more healthy and strong. Some prefer plants only a year old instead of two; and if they are to be cramped by upright planting, a one-year plant is more likely to grow out of its constrained position than one of two years. But while we are about it, we may as well sow the seed at once and have no planting at all. A very slight drill will do for each row, and the seeds may be dropped in two on a spot, and every nine inches. The object of two seeds instead of one, is to guard against failure and vacancy, and to enable us when they appear to remove the weaker and leave the stronger plants. These will require nothing but weeding the first year, cleaning and slightly earthing the second, and managing the same as established beds the third. The roots then assume their natural growth, stretching out all round the plant like the legs of a spider, and, of course, when roots are employed, the more nearly they can be placed in their natural position, the better they will grow. Many will sow their own *Asparagus*-seed for the purpose of raising good strong roots for forcing. These should be well-matured roots three years old, and

they will throw up strong buds. Now, the present month is a good time to sow. If for raising plants to be disposed of hereafter, the best way is to sow the seed in drills, the plants when up being thinned out, so that they shall be four inches apart in the rows where left to grow, and the rows should be six inches apart. These will only require to be well weeded from time to time, and kept clean.

Beans.—All these that are well up should be earthed; the soil being first well stirred a few inches on each side the rows. New sowings may be got in, to succeed the last crops, and all the crops that are up should be well and properly cleaned from weeds.

Beans, Kidney.—A few may be sown in a pan, or in pots, or even in a patch in the open ground, to forward them a little, being at all times prepared to protect them at night and in bad weather, for they will not stand frost; but, if they can be protected till May, and planted out, they will come in long before those sown in the ground at the proper season: transplanted beans always come into bearing sooner.

Beans, Scarlet.—The same management applies, only that the Scarlet-runner is of the two the more tender; but if either are sown in pots or pans, they can be removed to the house.

Beetroot.—Make a good sowing of this useful root. Sow it evenly all over the space allotted, which should in private gardens be in four-foot beds, for the sake of hand-weeding or hoeing out, as the case may be. It is better for private gardens to draw drills eight or nine inches apart, and to

sow the seed thinly, so that when up you have only to clear the vacancies between the rows, and thin the rows themselves to six or eight inch distances. The crop looks more regular, is easier kept clean, and can be well hoed between the plants without damaging them. Nothing is more refreshing to a crop of any sort than stirring the ground between them, breaking the lumps, and laying the soil close to the roots or plants.

Brocoli.—Sow a few of all the sorts to come in early; and the best way to manage all of them is, to take from the seed-beds from time to time the largest plants to put out; choose the middle of the month if the weather be favourable. We prefer sowing all these subjects in rows or drills a foot or eighteen inches apart; they are easily kept clear from weeds and thinned, if at all necessary, by hand, while they get plenty of light and air, and we can always walk about among them to do whatever is necessary.

Brussels Sprouts.—Sow this also in drills, for the same reasons as the others; they are more easily cleaned, hoed, and thinned if necessary.

Cabbage.—All the plants that are strong enough, or that remain in the seed and store beds, may be planted in vacant places, after the soil has been dug, dressed, and properly prepared. They may be planted out at half the distances they are to remain, and the alternate plants removed in good time to let the others come to heart. Sow all the sorts of Cabbage-seed early in the month, and towards the latter end sow Savoy-seed. Red Cabbages should be planted

out, to cabbage by Midsummer, or a little after, and seed should be sown now, to cabbage by the Michaelmas quarter or soon after. Strong plants, to be planted out this month, should be two feet apart in the rows and three feet between the rows. The soil should be stirred between all the Cabbage crops, and they will be none the worse for a little earth drawn to their stems.

Cardoons.—If this vegetable is to be tolerated among so many better things, sow the seed towards the end of the month. They may be sown where they are to remain, or in closer quarters to be planted out. They are large, clumsy growing plants, wanting four to five feet square of room, and are earthed up almost like Celery to blanch; and then only the fleshy part of the leaf can be eaten, after the fashion of Sea Kale, or Asparagus; for either of which it is a miserable apology. If you sow where they are to remain, drop two or three seeds on each spot, say four feet apart one way, and five the other; and when the seeds are up, pull out the weaker and leave one strong plant in each hole.

Carrots.—After trenching and bruising all the lumps in the ground eighteen inches deep, and well pulverizing the soil, level, and sow Carrot-seed the first week in the month. The Early Horn kind will grow almost anywhere; but the long sorts are more dainty of soil and situation. The seed of the Carrot sticks together, and can only be separated by mixing with coarse sand or fine gravel, and rubbing it out until it will scatter freely. You may then sow in drills

or broad-cast; but the former is best for private gardens. If in drills, it may be very thinly sown, the drills being small and six inches apart. The first hoeing after it is up will reduce the plants in the rows to the same distance, and afterwards nothing but hoeing out the weeds will be required. If broadcast, let the beds be four feet wide, with eighteen-inch alleys between them; then the seed must be scattered very evenly all over the space, and as thinly as possible; for when up all but enough to reach over the bed at six inches apart must be wasted, taken away by the hoe. A mode of growing Carrots to a large size has been mentioned by old gardeners, but we only mention it to say we have no faith in it; we never saw it carried out even by those who recommended it. They profess to grow all tap-rooted plants to a large size by first thrusting down an appropriate "dibber," to make a hole the size they want their Carrot; next fill up the hole with rich light earth, and sow two or three seeds at the top, for the purpose of choosing the strongest. This sounds very theoretical; but why should a Carrot grow better for being confined to a hole full of good soil surrounded by worse? why not sow the whole crop in "rich light earth?" We strongly suspect the dibber system to be the offspring of some antiquated scribbler, who fancied he had made a discovery, but never tried it. One thing is quite certain, namely, that a far better crop would be produced on a piece of rich light earth well pulverized and prepared.

Cauliflowers.—About the middle of the month look over the Cauliflowers which have been growing under hand-glasses, and remove all but the best two or, at most, three. Remove them carefully, without breaking the fibres, and transplant them to a warm border or open space of well-prepared ground. Put them in rows two feet apart in the row, and three feet from row to row. Settle the earth about the roots of those left under the glass, by pressure, and, if necessary, a little water. The glasses must only be raised in fine weather, on the south side; but on fine warm days the glasses may be removed altogether, and especially, if there be an opportunity, let them have the benefit of a warm shower. Cauliflower plants under frames and glasses must be picked over, all the weakly ones thrown away, the earth stirred between them, and the dead leaves picked off. Towards the end of the month plant out all the strongest plants from the frame, two feet in the rows, and two feet six between the rows. By way of clearing out the frames, prick out the smallest plants in a warm situation and good soil, about six inches apart, for the purpose of growing into strength. Sow Cauliflower-seed the first week in the month in a warm border. If any was sown last month, prick out the young plants as soon as they are large enough, on a well-prepared bed of good rich soil; or if you have a garden-frame at liberty, you cannot make a better use of it than to prick out the young Cauliflowers under it as soon as they are large enough to handle.

Celery.—Sow some seed on a warm border of rich earth the first week of the month, and be prepared, if the weather be very unpropitious, to throw over a bit of light litter or a mat, though it is not very tender; and towards the middle, if the weather be open, get in a second sowing; if the weather be bad, leave it till nearly the end of the month.

Chives.—If you did not last month part and propagate this little herb, which is a substitute for onions, it is not too late now; but no more time should be lost.

Coleworts.—As we have recommended young Cabbage plants for Coleworts, and thick planting of Cabbages, for the purpose of drawing out all the extra ones to eat as greens, they are complete substitutes for Coleworts; and the sooner all extra plants are drawn out and the Cabbages left at proper distances, the better.

Eschalots.—These have only to be kept clear of weeds.

Garlick.—The same remarks apply.

Herbs.—The seeds of all these may be sown this month: Thyme, Parsley, Angelica, Balm, Basil, Borage, Carraway, Chamomile, Clary, Dill, Fennel, Hyssop, Lavender, Liquorice, Marjoram, Mint, Orache, Pennyroyal, Purslane, Salsify, Rampion, Rocambole, Rosemary, Rue, Scurvy-grass, Sage, Savory, Skirret, Tansy, Tarragon, Wormwood, &c.; many of which, however, are perennials, and may be propagated by cuttings. Nevertheless, there is great satisfaction in sowing seeds; you get fine healthy young plants and plenty of them to form a good herb-bed. Some

gardeners recommend Basil to be sown in a hot-bed and planted out; we found no more difficulty in that than in any of the others. Do not sow them too thickly, and as soon as they are up, thin them a little where they are too thick; and, lastly, plant them out a foot apart; but not this month.

Horseradish must be weeded; for the first shoots come very thin, and the roots of anything would interrupt the growth, on the straightness of which everything depends, if they are to be grown handsome.

Kale, Scotch or Curled, may be sown this month, either in drills or in a bed; they are the most constant and useful of all winter greens in hard weather. Sow seed to raise plants in good soil and an open situation.

Kale, Sea.—Let the ridges be kept clear of weeds, and level at top; for the breaking of the surface is the signal for cutting; therefore there must be no roughness.

Leeks.—Sow in a bed or in a border a sufficient quantity for planting out. Let the ground be well dressed or naturally rich.

Lettuce.—You may now plant out any that are large enough, whether raised in frames or on warm borders, among Radishes or Onions. As many of the strongest plants in the border would heart well and early if they had room, leave some of the best about a foot apart, and plant out the smaller ones that are drawn out from them. Now sow the seed of various Lettuces the beginning, middle, and end of the month. These will succeed those now planted out, and keep up a supply till

July, to be succeeded by others sown next month and afterwards. Keep the seed-beds clear of weeds; and where the Lettuce has been growing among other crops, see that they have room to grow.

Onions.—Sow a good breadth of these for the main crop. Let the ground be well manured with good rotted dung in abundance, well mixed, the earth bruised and pulverized. Make four-foot beds, and eighteen-inch alleys, sufficient for all the crop you want. Level and rake the surface well; then sow evenly and thinly all over the space from one end to the other. Then take soil from the alleys, bruise and pulverize it well and with the spade; shower it evenly all over the bed until the seed is thinly covered, then pat it down with the back of the spade tolerably hard, or, if you have patience, tread it all over by walking from one end to the other, backwards and forwards, bringing your feet close to each other every time, until every inch has had your weight. It may then be smoothed with the rake; the sides cut level, and repeat the same at every bed.

Parsnips.—Sow these for the chief crop, as soon as you like in the month. Prepare the ground as for Carrots. As this root keeps all the winter, even longer and better than the Carrot, it should always be an item in the economy of the garden. They may be sown in drills nine inches apart, or broadcast, on four-foot beds, to be hoed out; for if the Parsnip be on good ground it will require nine inches of room to swell out properly, and nothing has so good a flavour if stunted.

Peas.—As we recommend many

sowings of Peas during the season, we should always sow when the last sowing came up, whether it accorded with our periodical sowings or not. Some sow once in three weeks; some once a fortnight; but when we see the last sowing above-ground, there cannot be a doubt on the propriety of getting in another crop. Stick all those that are up, having previously loosened the earth about them, and earthed them up. Choose open situations for these sowings.

Potatoes.—Now we must begin to think of the principal crop, and above all things look to your seed. If they have grown much out of ground, you run great risk of partial failure. Choose whole sets in preference to cut ones, and plant them about a foot apart in the rows, and two feet from row to row. If, however, they are a small sort, nine inches will be far enough off in the row; but if they be a large sort and tall growing, you must allow two feet six inches between the rows.

Radishes.—This is a crop begun on warm borders with protection, and continued as long as a family wants them. Sow a succession, and do not confine yourself to one sort; sow all the sorts, long and turnip; and if there be a succession of dry weather, water the forward Radishes well enough to moisten the very tips of their roots, or they will get hot and bitter.

Rhubarb.—Those plants which are pushing strongly will do all the better if the ground is forked between them, and the dung forked in. Care must be taken not to damage the roots, and

loosening the soil will prevent the frost from hurting them. If the weather be frosty, there is no harm in keeping some loose litter over the hearts of the plants. Seeds of Rhubarb may be sown on an open space rather thinly, and be hoed out to a foot apart.

Salads.—So many subjects contribute to Salads, that they almost form a class by themselves. Corn-salad, Cress of various sorts, Sorrel, Nasturtiums, Dandelion, Mustard, Rape, and various other simple things, all help to make a salad. All these things may be sown this month in the open ground, and can be planted out where we please. Nasturtiums are best against palings or fences, where they can be supported by sticks or strings. The leaves, flower-buds, and seed-pods are all good. Mustard, Cress, and other small Salads may be sown weekly, very thick, so that they may be drawn up long in the stem, and be cut and eaten before they make a second pair of leaves. Corn-salad or Sorrel are taken leaf by leaf to help to fill the salad-bowl, and young blanched leaves of the Dandelion are a great delicacy.

Spinach may be sown now, in drills or broadcast, always bearing in mind, that if broadcast, it should be on four-foot beds, that it may be conveniently thinned to its proper distances, six inches apart; but if in drills six inches apart, there is less trouble to the young gardener, who has his distances already half made. Winter Spinach continues to give a few dishes, but as soon as it rises for seed it may be cleared away, and the ground occupied with something else. The Spinach sown now, or

last month, is fit to cut as soon as large enough, and many do not thin it until the largest plants are ready, when they continue to pull up these as fast as they grow into eating size, which is when they have four rough leaves; but it is finer when hoed out to six-inch distances. The difference between Winter and Summer Spinach is that the former keeps growing, and the supply is by taking off the largest leaves all the first or winter quarter of the year, and the latter is pulled up directly it is large enough, and the root merely cut off, for the plants to be cooked.

Turnips.—Sow in the middle of

the month, in an open situation, in four-foot widths and eighteen-inch alleys between them. Sow evenly and thinly all over the surface, and cover lightly, but effectually; for if there be any seeds exposed, the birds will soon destroy the whole.

Produce of the Vegetable Garden and Stores.—Beetroot, Brocoli, Cabbage, Carrots, Celery, Coleworts, Corn-salad, Cress, Endive, Eschalots, Garlick, Horseradish, Jerusalem Artichokes, Kale, Leeks, Lettuces, Onions, Parsnips, Potatoes, Radishes, Savoy, Spinach, Cabbage-Sprouts, Turnips, and all the Herbs.

THE ORCHARD AND FRUIT GARDEN.

Finish Pruning, if not finished last month, and especially attend to the rules laid down in January, not only for wall-fruit trees, but for standards also. In fact, we hardly know how to add anything useful to those directions, because, as we recommended the commencement of pruning, it was necessary to give our notions of how it should all be done.

The Bloom of Fruit Trees.—So many different opinions have been given on the various modes of preserving the bloom on wall-trees from the effects of frost, that unless it be to help a man to make up his mind as to the best, we should say nothing about it. A sort of net made like a coarse veil, such as ladies wear, and which, from its peculiar form, is

called an hexagonal net, was given to us some time ago, and it was hung loosely in front of Apricot, Plum, Peach, and Nectarines, growing on a south wall, and it evidently had the effect of retarding the bloom, and of breaking off the frost. Those trees of the same kinds left uncovered, were in bloom before the covered ones, and the fruit set before the covered ones; and moreover, though a larger portion fell off during the period of stoning, there was a good sprinkle of fruit; but a sharpish frost coming after the fruit was a good size, two-thirds of the uncovered ones fell, while those that were covered had to be thinned to one-fourth of the original number, but they were not so forward as the uncovered trees

produced them; and we judge from these circumstances that the heat of the sun was neutralized, as well as the intensity of the frost; so that the great changes from the heat of the sun on the south wall, without anything to shade it, to the chilliness of the frost during the night, are the causes of the mischief that results from no protection. But of this we are quite sure,—there is more need of protection against the sun after a frost, than there is of protection against the frost itself: therefore, whether covered or not against frost, we should never omit covering against the burning sun and sudden thaw. We are all anxious to get wall-fruit early, and covering at night unquestionably promotes early bloom; but it increases the difficulty of carrying our object through, because, if the frost is allowed to get hold of bloom or fruit, it is often fatal: we have frequently matted the trees after they have frozen, to prevent the sun from reaching them till they have thawed, and found the benefit of it. The hexagonal net is the only covering we should use permanently, and next to that, bunting (such as old flags) is best.

Planting fruit-trees is anything but desirable this month; it ought to have been all done long since; but, as it will sometimes happen, a man takes possession of his garden too late for proper management, he must then do as he can, instead of doing as he would. All that can be recommended is to take up the trees with the greatest care, without losing a fibre of the root if it can be avoided; then, in making the hole to receive it, take plenty of

room, and loosen the bottom well, fill up in part the hole you have dug, so that the plant will stand with the collar of the root above the level of the soil, spread the roots out very carefully, and throw on the well-bruised earth; begin treading it in all round the extreme edge of the hole, so that the fibres all round at the points of the root may be pressed solid, then tread all round a little further in towards the tree, but tread last near the trunk, and when finished, the place where the roots start from should be just below the surface; but we are not advocates for such late planting.

Digging between the fruit-bushes and canes, or forking the ground, is always beneficial, provided you do not injure the roots; and if the ground be at all poor, turning in a good dressing is of service; loosening the surface after being closed by the winter's rains gives air to the roots, and refreshes the bushes or canes. Many grow various crops between the rows of fruit, but it is not desirable when the bushes have attained any size. The proper way to treat all these things is to give the subjects all the room they will require when at maturity, and not to crop between the rows above a year or two, while they are small.

Go over Espaliers and Wall-trees, to see that the fastenings are all sound, and make good where there has been an omission, or a failure afterwards.

Top-dress Strawberry-beds with a coat of well-rotted dung, which may be carefully forked in to reach the fibres, but they must not be torn or damaged. If this

has been done before, so much the better, but it is not too late, and the spring showers will wash it down to the roots, and strengthen the plants, but avoid tearing the fibres in forking.

THE NURSERY.

Seedling Trees may still be removed, although it had better be done before; and this applies to all kinds of unworked subjects, Apple, Pear, and Plum stocks of every description, forest trees, ornamental trees and shrubs, and everything in a young state.

Grafting may be commenced with all kinds of fruit-trees. The various modes of grafting we have often spoken of, but it cannot be too often repeated that it matters not how a join is made, so it be close, neat, and clean, the bark of the scion being closely fitted to the bark of the stock. If the stock be very much larger than the scion, the join can only be on one side; where, however, they are both of a size, they may be spliced like a whip or stick that has been broken, only that if, after the sloping cut has been made in both, so as to fit exactly, a slit or cut is begun about the middle of the slope, and carried on towards the thick end on the scion, and a like slit made in the stock downwards, so that by tucking the two raised tongues, as it were, into one another a little distance, the slopes will come in their right places, the graft is much safer than when the slope only is depended on; but the mode of grafting or joining the scion to the stock may be varied fifty ways, of which the easiest is always the best. The scions are none the worse for

having been collected two or three weeks before they are used, so that the lower ends are stuck into the ground as if for cuttings. Perhaps the most easy mode of all is to cut the stock down about two inches, that it may open to receive the scion cut into a wedge, and it must be put down on one side, with the bark even with the bark of the stock; for if the stock is five times as large, it is of no consequence, so that the barks meet in one place. These grafts, after being firmly tied, are covered with prepared clay, to keep the air from them until united.

Examine, and trim according to the object required, all the budded and grafted stocks of last year's working; those which have been worked at the proper height for a head, may be cut back to a few lower eyes, which will start to form a head; others that have been worked low, and which are to form their own trunk for standards, must be side-pruned to run up a strong shoot, till high enough to be stopped; others, intended for dwarfs or espaliers, must be cut back to three eyes, to throw out two laterals and a leader, for after training. In all cases the growth of the stocks must be removed, and constantly watched, to see that they do not start.

Seeds of all kinds may be sown, that is, all hardy subjects, in

ordinary beds; the more choice things, such as Coniferae, Americans, and flowering shrubs generally, should be sown in pots or pans, for the convenience of removal for protection when necessary. The seeds of hardy evergreens, such as Holly, Oak, Yews, and other not very delicate subjects, may be sown in beds four feet wide, for the convenience of hand-weeding.

Vine Cuttings, for those who propagate that way, may be got in now, but from eyes we obtain the best and most healthy plants; these, however, are started in hot-beds. The weeding of all the quarters of young plants must not be neglected.

This may be called the latest period for parting and transplanting all the leading herbaceous, and other hardy perennials. This should have been done before; but if the weather be favourable, it may yet be done with all those subjects that have not commenced growing too fast, for those which have will proportionably suffer by late dividing.

Plant out Stocks intended for

budding, if not already planted, especially Plums, Peaches, Nectarines, Cherries, Apricots, Roses, and Stocks for the varieties of flowering trees.

If the spring be dry, windy, or warm, some of the young seedling trees which are hardly established must be watered occasionally.

In most nurseries, (we do not speak of trading nurseries, but those in large establishments,) young trees and shrubs are allowed to be too long in a place, until they injure each other. To prevent this, either transplant all at greater distances, or take out alternate plants to form other quarters at proper distances, thus giving room to those left in the ground, and improving those which are planted elsewhere. All kinds of stock should be removed every third year, so long as there is a chance of wanting them for planting elsewhere. The ground from which the alternate trees are taken must be regulated and laid level; in fact, it should be forked all over, as close to the plants as they will bear it.

PITS AND FRAMES.

ALL the subjects in the pits and frames are getting forward. It is the last chance for planting out Pinks, even from their pots, to do any good, or to put them into other pots if they are to bloom there. The same may be said of Pansies. The frames may be mostly uncovered for these subjects while the weather is fine.

Preparation must be made now for getting Carnations and Picotees into their blooming pots. The compost, which should be two-thirds loam from rotted turves, and one-third rotted dung, decomposed into mould, should be well mixed and turned over, examined closely for wireworm and grubs, and be always ready.

Potting Carnations and Picotees.

—Take twelve-inch pots, put sufficient crocks, or lumps of charcoal, to make a good drainage, and fill the pots high enough to rest the balls of earth on containing the plants. Without disturbing any of the fibres, rub off some of the surface, but not below the fibres. Set the ball in the middle of the large pot, with the collar of the plant just even with the top edge of the pot, and press it down an inch into the soft mould below; then fill up with the compost, thrusting it down with your hand to make it lay solid against the sides of the ball, and fill up even with the collar of the plant. These, after repotting, might be placed for awhile in the frames again, or under the protection of hoops and mats, or in a shed or some shelter. This should be begun towards the end of the month, and after potting they should be refreshed with water.

Potting Pinks and Pansies.

Six to eight-inch pots are large enough for these; but the process of potting is precisely the same, and these must be replaced in frames under glass.

Give as much air as possible to all the half-hardy plants under glass.

Azaleas, Camellias, Daphnes, Heaths, and many other subjects in the brick pits, may be removed now to the greenhouse or conservatory.

All the choice shrubs under glass should be kept as open as possible, so that they be shut down at night and during frost. If by any unforeseen accident, the plants in a frame or pit get frosted, shut them up close, and do not let a ray of sun reach them till they have thawed, which will perhaps be a day or two after a thaw has set in, because the rays of the sun are excluded, and thawing slowly prevents mischief.

THE FORCING GROUND, ETC.

Apricots may require thinning, and disbudding, and careful watering; they must not have it too frequently.

Cherries must not be watered too much when they begin to ripen; but they absorb a good deal while the fruit is swelling. Do not allow any shoots to grow where they are not wanted; they should always be rubbed off young, and if there be any escape observation, let them be taken off at the base with a sharp knife. It is not desirable to have too many fruit left on to ripen.

Figs.—Keep the temperature of the house wherein Figs are growing somewhere about 60° to 65° by day, and when the fruit is half grown, give every other watering with liquid manure. Figs in pots will do well in a vinery, or a common stove, with other plants. It is the practice with some to pinch the tops out of the young shoots when four or five inches long, to stop them. The liquid manure most safe to be employed, is well-decomposed dung, (either cow or horse,) half a peck to ten gallons of water,

stirred together for a day or two, and used clear after settling, but this ought to be of the temperature of the house.

Grape Vine.—Whatever stage the Grape is in, (and in a good forcing establishment they are now in all stages,) great attention must be paid to the stopping of useless shoots, and the shortening of laterals back to a joint beyond the fruit intended to be perfected. Syringe freely with rain-water, except while the bloom is on, and after the fruit begins to colour, and steam the house night and morning up to a fortnight after the fruit begins to tinge or show colour. If they are grown upon the rod system, the rod intended to grow must be divested of its laterals, and be secured from damage through its own weight, by tying it loosely as it advances. All useless shoots must be removed. The fruit, where it is forward enough, should be thinned carefully; and where this has been done, and the fruit are swelling fast, the bunches must be gone over once or twice before they are left to complete. If the Vines are planted outside, the border must continue under protection, and the stems must not be exposed. Vines in pots require the same constant examination, and stopping, and removing useless shoots, the same thinning of the fruit, the same syringing and steaming.

Peaches and Nectarines must have the first thinning before the fruit arrives at a large size, and the second thinning after they have stoned; but many defer thinning at all till after stoning, because some will fall sometimes

during the progress of stoning. Remove all useless shoots and too vigorous branches.

Pines.—Keep up the temperature to 70°, and the bottom-heat fully as high; whenever the heat is above this, give a little air. The succession pit may be syringed all over the foliage of the plants, and the surface of the tan or other medium of bottom-heat. The time to shift the plants is dependent entirely on their growth. Nor are you to do all at once; examine them, and when the pot is full of roots, shift, without regard to any that may go on a month longer. It is somewhat strange that, of twenty or thirty writers on Pines and their management, scarcely two agree, while all, perhaps, have succeeded. According to the convenience a man must do his best; but so long as the Pine has heat and moisture enough to keep healthy growth, he may take great liberties without suffering much. Many have abandoned the practice of disrooting, and, perhaps, wisely. Market gardeners who work for particular seasons, and want all their crop ready when they bring most money, disroot their whole stock, and re-pot at one season; this is to throw them into fruiting; but the fruit is not so fine, though it may come sooner. In private families a Pineapple in perfection never comes amiss, and a glut is by no means desirable. As you have cut a fruit, and there happens to be a strong sucker on the plant, earth it up so that the base of the sucker shall be under the soil; it will strike new roots, and also take nourishment from

the parent, so that you will have another fruit in six or nine months.

Strauberreries must have water while the fruit is swelling, and when they begin to ripen we may relax a little; remove all runners as soon as they appear.

VEGETABLES.

Asparagus.—Nothing is wanted among the hotbeds devoted to this but fresh linings to the beds, to keep up the heat; for if that declines, so will the supply.

Beans in the forcing-house only require attention to the watering and gathering, for the Beans ought to be taken very young.

Cucumbers.—In the hotbeds these want occasionally regulating, to give room to the bearing branches, and old and used-up shoots may be taken back to any good strong lateral; if the heat declines, above all things use hot linings to bring up the temperature. Cucumbers in the forcing-house or stove, growing up the rafters, or otherwise supported, may have their laterals stopped at the first joint beyond one that bears; as the main branch is the one to fasten, and keep the succession of fruit in the laterals; but if a very strong lateral shoot appear, it may be a question whether you will cut back the main stem to it, and thus have new wood; while, however, the laterals bear tolerably well all the way up, let well enough alone. If any new plants are required, bring down one of the lateral shoots, and peg a joint down in a six-inch flower-pot, and this is very desirable with any good sort known to be true. Seeds

may be sown now to provide Cucumber plants for out-of-doors, either in ridges, or under hand-glasses.

Herbs in request, such as Mint and Fennel, which are always wanted before the out-of-door supply, should be provided still by potting up more plants, to succeed those which have been supplying hitherto. These can be forced anywhere in pots, no matter whether in the stove, or vinery, or common hotbed. If you have not enough in to carry you through till the out-of-door plants come in, get in a few more the first week.

Peas in Pots are advancing towards flower if sown early, and must be well watered, for, as they get to this size, they absorb a good deal of moisture, from the time the first buds appear, until they fill their pods. Those which are not so forward, but which have been pushed on a little to plant out, may have sticks put to them, the same as if they were to be finished in pots; but they may be removed to a cool place, to be gradually hardened off, so that they may be planted out at the end of the month.

Potatoes in Frames are now in full supply; and if not so large as they will be by and by, they are fit for table, and must be carefully taken, with as little disturbance as possible to the rest; but some people will poke about the soil, and get down to the potatoes without much disturbance, and pull off all the largest, carefully covering up the rest to grow on. But this is hardly fair play; still you may sometimes find a large one or two on each plant when

the bulk of the crop have not half grown.

Radishes in hotbeds, or moderately warm frames, require nothing more than water occasionally; not a sprinkling, but enough to go through the soil.

Rhubarb will force anywhere; a supply can be kept up from Christmas till June, by merely placing a lot of roots behind the iron pipes of the houses, or next to a flue, or in a warm pit, or a common hotbed; they do not even require to be potted, unless indeed they are required for show, instead of use.

Salads in frames also require watering, and thinning where they are too close; whether the small Cabbage Lettuce, or Cos, they must have room. The small Salads, such as Mustard, Cress, Rape, or Radish, sown thickly, to draw them up, should be watered over head gently, so as not to lay it down, and a succession sown, until the supply can be had from out-of-doors.

Sea Kale.—If this be forced in the regular Kale pots, you have only to cover up a further supply of pots with new and well-regulated stable dung. If forced in hotbeds, keep up the heat by new linings, for the Kale plants will shoot if there be heat, and cannot if allowed to get cold.

Tomato, Chili, Capsicum, Gourds, and Vegetable Marrow.—All these must be raised in hotbeds, or the stove, or forcing-house, and the seeds should be sown this month, towards the end of it; for it is not desirable to have them too forward. Capsicum and Chili may be sown directly, because they must com-

plete their growth under glass; the others are only wanted to be well-established plants in time to turn out in the open ground by the end of May or the beginning of June.

FLOWERS.

Flower Forcing may be said to be at its height. By this time the last of the plants put into the greenhouse, preparatory to their remove into the forcing-house, should undergo their change, and those which have nearly perfected their bloom should go into the Conservatory or the dwelling-house, where they are to flower.

American Plants generally afford a spring succession of flowers. *Kalma latifolia*, *Rhododendrons*, *Rhodoras*, *Andromedas*, and others, merely want liberal watering as they advance, and until in full bloom.

Azaleas of the American or deciduous kind may be found, perhaps, in the conservatory, just past bloom, the next batch just bursting into flower, and those just removed or about to be removed from the greenhouse. Take care of those past bloom; let them complete their growth under glass, if possible, and if well watered they will set their buds for next year.

Azaleas, Indian, are much in the same way; the first are nearly past flower, the second lot in perfection, the third rapidly advancing, and only require a few days in the forcing-house to develop their bloom; see that they have plenty of water.

Camellias are in bloom in the greenhouse without any forcing;

to keep those that have been forced in good trim, do not allow a single shoot to grow that will not add to their beauty; nearly all the end-shoots may be safely taken away, for they take up the strength of the plant, and grow out of all symmetry, whereas, when taken off, the side-shoots come better; but every useless bud should be rubbed off.

Lilacs and Deutzias, Weigelias, Cestrums, and Dwarf Almonds, are all in good trim to remove to where they are to bloom, and the last may be removed from the greenhouse to the forcing-house.

Roses.—Syringing frequently, plenty of air, and sufficient water, to encourage the growth and bloom, are all these require; but as soon as they show the colour of their flower, they ought to be removed to the conservatory. If there be any appearance of the green fly, fumigate at once with tobacco-smoke, and afterwards syringe with plain water.

All kinds of bulbs are approaching their bloom. The last may be taken into the greenhouse, and those already there removed to the stove or forcing-house, while the forward ones may be transferred to the conservatory or house.

If forcing be a part of the usual business, the greatest care should be taken of all the plants after they have bloomed, because, if a plant completes its growth—as it will if well looked after—a month, or perhaps two, before its usual period, it will be far more tractable as a forcing plant the next season, for it will be sooner ready to start, and will not require half the heat to set it off. A Rose, for instance, blooms in January: it is grown right on till it has completed a fair head of ripened wood; it is then deprived of water, and has a complete rest as long before its usual time as the flowering was, and is of course ready so much sooner.

STOVE OR HOTHOUSE.

THERE is no structure on the premises more easily managed than the stove. True it is, that if Grapes and Pines are placed there, in addition to the ordinary stove-plants, and moreover if it is made a forcing-house besides, a good deal more care is required, and it will happen that some of the many subjects will not do so well as if they were by themselves; nevertheless, much may be done. Heat, say up to 70° by day, and 60° by night, will agree with almost everything.

Examine all your plants now to see if any require shifting to larger pots. *Amaryllis* that are starting for bloom after their rest must have larger pots of good rich compost; *Gloxinias* which are on the move also want shifting.

Climbing Plants want almost daily attendance to direct their shoots the right way, for they must not be allowed to ramble.

All the seedlings and small plants that have filled their pots must be transferred to larger ones, and this must be seen by turning

out two or three balls of earth entire, to see if the roots have begun to mat, in which case the change must be made.

Cuttings that have struck root must be potted off. Great care must be taken to water sufficiently all the growing plants, to syringe them all over head, and shut them up with the house well steamed, occasionally, by watering all the iron pipes and the floor.

Specimen Plants in full growth must be stopped as soon as the shoots are long enough, to induce bushy growth; and very large plants must be examined, as, if they are pot-bound, something must be done to relieve them. When a good plant has filled the pot as full of roots as it can, it

must be watered very frequently, and every third or fourth time let it be with liquid manure, otherwise it will go back for want of nourishment, the soil in the pot having been impoverished by time and the growth of the plant; but it is far better to shift it, if possible, at once.

If the house has been used to force things, get rid of them as fast as they show flower; turn them into the conservatory or the dwelling-house, or wherever they are intended to bloom.

Keep the temperature near 70° by day and 60° at night as you can; it is good for almost everything that ought to be in the stove; even plants that are forcing will stand it.

CONSERVATORY.

THIS should be well supplied this month with a succession of flowering plants; Camellias not quite gone, Rhododendrons and Azaleas of both kinds, in full order, Lilacs, Deutzias, Dwarf Almonds, Kalmias, Roses, Cinerarias, Primulas, Geraniums, Hoveas, Acacias, and scores of other subjects, may now contribute to the show house. The greenhouse gives up one-half its treasures without forcing; Tulips, Hyacinths, Narcissus and other bulbs aid in producing a grand effect, and a succession of most things is secured, without resorting to extraordinary means.

Cleanliness, which we have inculcated in all departments for the health of the plants, is indispensable here, for it is the draw-

ing-room of the garden, the show house of the establishment, and must be maintained without a soil.

Dead Leaves, and fallen petals, must be gathered up daily the first thing in the morning; fading and faded blooms must be cut off; the soil on the beds and borders, if there be any, must be stirred and raked clean frequently, and great attention must be paid to watering; there must not be too much, so as to splash and run about the paths or floor.

All the Plants that are growing up pillars, or on festoons, or other supports, must be frequently adjusted, so that they may grow where they are wanted, and not hang about where they ought not. Let any plants that have been

forced, and that are not detrimental to the appearance of the house after blooming, complete their growth, if you can, the *Camellia* especially; and as these begin their growth, rub off every bud that starts where you do not want a branch, so that the new growth may be handsome.

All the forced plants that must

be turned out should be protected until they have completed their growth without receiving any check, for they will be all the better for forcing next season, whereas, if they are thrown by out of doors they will be good for nothing under a year's growth, and perhaps not then; the check is injurious, and often destructive.

GREENHOUSE.

THIS is perhaps the most useful of all structures, and is the receptacle for every tribe of plant that cannot stand frost, and does not want heat. We must treat it as the receptacle of a mixed collection, comprising plants from the Cape, from China, and almost every climate short of tropical. All the *Acacia* tribe, the *Hoveas*, *Azaleas*, hybrid *Rhododendrons*, *Heaths*, *Geraniums*, *Calceolarias*, *Primulas*, *Cinerarias*, Botany Bay plants, not forgetting the old, excellent, but neglected plants, *Nerium Oleander*, the common *Myrtle*, and *Orange-trees*, worse used than any other plants, and still grateful enough to give their flowers at the proper season. Keep the house, shelves, floor, and stage dry, and if inclined to be damp, continue fires in the day, and open the top-lights. Let not a dead leaf lay about, and keep everything clean. Look to the soil in the pots, see that it is not discoloured with moss; stir it, and if foul throw the loose off, and top-dress it with decomposed dung two-thirds, sand one-third; it will apply equally well to every plant in the greenhouse.

Shift into larger pots all those

which have filled their present ones with roots.

Azaleas are perhaps showing bloom, but the new growth is pushing out beyond the flower-buds. Now this new growth must all come off, and it will do for cuttings, while the blooms will be larger and stronger in consequence; besides which, the new growth of the plant would, if allowed to go on, hide the flowers altogether. If, however, the plant does not start, but the flowers progress properly, there will be no occasion to interfere.

Camellia Japonica will be starting its new growth, even before the flowers are out, and if so, remove the bud that shoots from the bloom, as it not only checks the flower, but generally takes the lead, to the detriment of the side-shoots, and merely lengthens the present branches, inducing lanky and ugly growth.

Give air every opportunity in fine weather, and maintain a temperature under 50°, but not lower than 35°. As the days lengthen, the top-lights and all the doors and sashes may be opened on fine dry days. In other respects go on as before.

HEATH STRUCTURES.

THE great aim now should be to give all the air you can on mild days. If in pits, take the lights off; if in proper houses, open every window, and slide down every light; a good blowing about will do them good, if the wind be not blustering.

Of course, those who are growing large specimens, to be carried about from show to show, will have their own way, will put in scores of sticks to tie all the branches out in a particular direction, because mechanical gardening must be done at particular times, when the branches are ready; for as even the most ingenious mechanic (we cannot call it gardening) is ashamed to show his props, he endeavours to conceal them as much as possible.

Growing Plants may require to have the ends of the branches or shoots pinched off, to induce bushy growth.

Cuttings which have struck root must be potted, and the soil for them must consist of one-half loam from rotted turves, and the other half turfy peat rubbed through a coarse sieve; others that have been potted, and filled their pots with roots, must have a change, and so through all the stages of growth; the ends of the shoots must begin to be stopped while the plant is small; before the struck cutting is two inches high, its top should be nipped out, and then, as other branches grow, they must be stopped as soon as they are large enough to form a good bushy little plant, and this must be continued.

As the plants advance to a larger size, and want larger pots, some little change is required in the soil. The peat must not be rubbed through so small a sieve, and after a time only be chopped small, and not sifted. It is presumed that the peat has naturally sand enough in it to render the mixture porous, otherwise sand must be added for that purpose; but as everything depends on the peat being of a right quality, there should be no occasion for anything further. As the plants get larger, and a vigorous growth is wanted, there may be given occasionally liquid manure made of half a peck of cow-dung well rotted, to ten gallons of water, and apply this about once a fortnight instead of plain water.

Seeds may be sown in pans or wide-mouthed pots, and should be covered with damp moss till they vegetate, when it may be gradually withdrawn; but the young seedlings must not have the hot sun, and must be carefully watered. The temperature, if the house be dry, need not be over 35°, and it ought not in mid-day to be closed at all, unless the weather be foggy and damp.

Heaths that are in flower should be removed to the conservatory if wanted there, before the bloom is fully matured, and placed in the coolest part of the building, where it will have most air, and close to the light, to prevent their drawing up weakly. Watering is the most important of all operations for Heaths. Every plant should be examined before it has a drop of water.

GERANIUM HOUSE.

THE stopping of the ends of shoots must be now done rather judiciously, and be confined to those which are inclined to take a lead, and spoil the shape of a plant. Keep the plants in a good bushy form, and remove any shoots that grow inward, and cross each other.

Seedlings should be an exception to the stopping system, because we require to see the natural habit of a plant; and besides this, as stopping the shoots retards the bloom, and we are anxious to see it as soon as possible, it would defeat our object, for a time at least.

All the small plants that have filled their pots with roots should be shifted into larger ones, and the rambling growth, if any, should be checked by nipping off the ends of the shoots.

Larger blooming plants may require a shift, and if so, small shifts are of no use; there should be at least a full inch vacancy all round the ball, which should on no account be broken.

Syringe the house well towards evening, and close up, and if there be the slightest appearance of green-fly, let the house be fumigated with tobacco-smoke in the evening, and afterwards, that is, in the morning, be syringed with clear water, to wash off the dead flies; but they ought not to be allowed to get ahead on any account; one stray fly should be the signal for the remedy, for it is better to stop their increase at once.

Let every discoloured leaf be removed, the surface of the soil be stirred, and the shelves and stages be thoroughly dried and cleaned. Give all the air you can if the weather be open, but close before the cool of the evening sets in.

Seed may be sown towards the end of the month, in pans or wide-mouthed pots.

Any rooted cuttings that may not have been potted off, should now be placed one in a pot; three-inch pots are large enough for the first potting.

Of course the stick system brings on a good deal of work at this time, for every shoot must have its prop, and these are stuck as thick as pins in a cushion, sloping outwards, to divide the miserable shoots equally at the surface, and place them mechanically true; at least so long as judges allow props to be used; but we hope that gardening will one day prevail, and the carpenter's work in a greenhouse be done away with. We have seen a plant two feet across, well filled up to the surface, and in full bloom, without a single support; but one of the artificial growers observed that if he were allowed to tie it out, it would be a yard across, and look better; however, the honour was declined, and the plant allowed to show its natural beauties.

Watering must be daily attended to, by examining all the plants, and giving it only to those whose soil is dry.

WINDOW GARDENING.

ALL the plants should now be put close to the glass, and the windows opened in fine weather. The dead leaves should be regularly pulled off the Geraniums, Cinerarias, and other soft-wooded plants. The surface of the soil in the pots will be the better for stirring a little; and if the loose be thrown out, and some fresh put in, they will be all the better for it.

All the bulbs that have bloomed should be taken to the open ground and turned out; if from pots, the balls should be put in whole; if from glasses, the roots should be spread on a sort of sloping bank made for them, and the bulbs in both cases should be three inches under the surface.

Those which are blooming should be kept near the light, and have air when the weather is fine. The house ought now to be enriched by plants from the greenhouse and hothouse.

Acacias, Hoveas, Camellias, should be now in flower, even if kept in the house all winter; but it is possible the Geraniums may have lost some of the leaves, and get a little straggling for want of attention when there was no temptation to garden; prune them into any form you please, they will soon recover leaves, and be in good time to bloom.

The growth of the *Camellias* should be checked just as we have recommended when speaking of them in the greenhouse and conservatory, and when they are growing they should not be sub-

mitted to the open air, except in very genial weather, for a check while they are growing prevents them from setting their bloom for next year.

In other respects keep on much the same as last month, only be careful to water thoroughly when you do it, and never do it while they are moist.

All the plants will be the better for a warm shower of rain, if the opportunity offers of setting them out of doors for the purpose; not those in flower, for the wet might damage the bloom, but all that are not yet open, and others that have gone by.

Climbing Plants.—Many persons are partial to climbing plants at their windows. The most popular of these are *Tropeolum Canariense*, the common *Nasturtium*, *Convolvulus Major*, which may be sown in pots, and kept inside until the end of May, when they may be put outside, to run up lines or twigs, or tall branches, to completely shade the room.

Annuals of several kinds grow well in pots: Sweet Peas, *Mignonette*, *Lupins*, *Nemophylla insignis*, *Virginian Stock*, and many others; but half-a-dozen seeds in a pot are sufficient.

Wardian Cases are pretty window ornaments; these are of various forms,—conservatories in miniature; but the same rules that apply to the large buildings govern the economy of these small ones. Tall cases must be furnished with tall-growing plants; short, ones would be too far from the glass.

APRIL.

PLEASURE GROUND AND SHRUBBERY.

THE Lawn now requires frequent brushing, rolling, and mowing, and the edges cut clean with the edging-iron. The verges round the borders, and of clumps, get uneven, and spread out both in the gravel-walks and the border; these must be kept even, and of the same width everywhere. If Daisies appear on the Lawn, they must be removed daily with the daisy-rake; but it is a tax; it is better to cut them up at once with a spud. Dandelion, too, is a sad weed, and these must be dug out, for the smallest piece of root left in the ground will reproduce strong plants. Some gardeners affect to kill these by cutting off the top, and salting the remains; they might as well put the salt on the tail of a sparrow to catch him; nothing but exterminating the root wherever you can reach it, will get rid of this ugly weed.

The Flowering Trees and Shrubs are now becoming quite gay. The Double-flowering Peach and Cherry, Lilacs, Honeysuckle, Laburnum, Berberis, and other early shrubs and trees, are in bloom, or near it; and as they decline, and before they make fresh growth, is the time to prune them, to keep them or bring them to proper shapes. In doing this, you must calculate the probable form of the

new growth; and, in cutting back the branches that are rambling too much, consider how much the new branches will occupy, and cut so that the form shall be handsome.

The borders between the shrubs must be kept very clean; and if there be any herbaceous plants or other flowers in front, look to their well-being. If any are crowded, make room by sacrificing part; support those that require it, before they are tall enough to be injured. If you like a Hollyhock here and there, towering above the evergreens, put them in where there is room, but remember that as the shrubs and trees will keep off the rain, the Hollyhocks must be well watered as often as they require it. American plants with large balls of peat to them will still move, if you want to fill up any space, or produce a brilliant effect at particular points, or replace any that are dead, or destitute of blooming-buds in a conspicuous place. If there be much dry weather this month, give the American beds a thorough good soaking with water, for as the buds containing the bloom are swelling, they must not be allowed to get dry.

The paths and roads may now be disturbed. First clear off all the

weeds, and rake off everything but the gravel; then with an ordinary pick stir up the whole surface three or four inches deep, and rake it all over, burying the larger stones, and smoothing the top. After well rolling this, they will all appear as if newly gravelled. We are of course assuming that they have been properly made, and that there is thickness enough to allow of this operation. When the trees successively come into bloom, make your observations on the possibility of improving the plantation another year; see if there be too many of one, and

not enough of another, and consider whether there may not be some judicious additions and changes; taking care, however, to preserve all the main features in evergreens, to keep the garden cheerful when the leaves of deciduous trees have fallen. Of course the sooner in the month this is done, the better it will be.

Subjects in Flower.—Service-trees, some Thorns, Almond, Double-flowering Peach, Cherry, and Rose; Laurustinus, Laburnums, Bay, Berberis, Honeysuckle, Lilac, Hypericum, Pyrus Japonica and Spectabilis, &c.

THE FLOWER GARDEN.

Alpines must be kept clean, and dry if possible.

Anemones that were autumn-planted must be still protected from frost, and, as they show their bloom, from sun also, if a prolonged season of flowering be desirable. Water in dry weather.

Annuals may be all sown, if not sown last month; those which are better not removed, on the borders where they are to bloom, in little patches; those which are to be transplanted, in rows across a bed, or in larger patches.

Auriculas are in flower, and if the weather be dry, may be watered, but the blooms not wetted.

Azaleas.—The buds of these are swelling, and it often happens that the growth commences on the branches which have no buds; these ought generally to be cut back, because in the flower-garden

the bloom is of more consequence than the size of the plant, for which reason any of these in the borders should be kept down.

Berberis.—Where any of these are in the borders, check the new growth by shortening the most vigorous shoots.

Carnations in beds or borders must be cleared of their dead leaves, and if not already top-dressed, give them an inch of well-decomposed dung on the surface.

Chrysanthemums for exhibition or cut blooms must not be stopped; some may be turned out of their pots against a south wall, or side or front of a house, and as they rise be loosely supported; those to be grown in pots for the same purpose must be supported. The plants intended for specimens must be stopped over and over again, until they assume the form

of a complete bush; therefore stop all the leading shoots early.

Dahlias intended to be propagated to some extent, may be turned over to the stove or warm pits to be nursed; but, if to be merely doubled or trebled, cut up as soon as they show their eyes, and plant in the ground as directed last month.

Fuchsias that have stood the winter out of doors begin to grow. If they have been only killed back to the hard wood, prune the plant into something like form, so that, allowing for the growth, it will make either a good bush or standard.

Herbaceous Plants, comprising Delphiniums, Lupins, Phloxes, Aquilegias, Campanulas, and many other perennials, may now be coming up in large patches; these would be improved by removing the outside shoots carefully, and reducing the principal stock to a reasonable size, and the disturbing of the soil near them will strengthen them; those which are of the proper size will be improved by stirring the soil.

Hollyhocks may be planted out where they are to bloom; if in pots, turn the ball out whole, and insert them even with the surface, without disturbing them at all; water them to close the soil about the sides of the ball, or if planted from the ground, to settle it about the roots.

Picotees in beds or borders must be treated as Carnations.

Pinks.—As these begin to grow they must be watered in dry weather; it will wash the top-dressing to the roots, and greatly strengthen them.

Polyanthuses and *Primroses* may

require watering, and a sharp lookout must be kept for snails and slugs.

Ranunculuses, autumn-planted, must be protected, and those planted in February may be breaking through the ground; if so, let the earth be stirred all over, all the lumps broken, and the soil laid close to the tubers.

Roses.—Examine carefully for grubs, which frequently destroy the early bloom by eating the incipient petals within the green calyx, before even the leaves are developed. Watch also for the green-fly, which may be brushed off before they are too numerous, or washed off with the syringe. When the vermin have got the upper hand, and, as we have seen, destroyed the heart of every bud, prune off as much as you can, induce a fresh growth, and be content with a later bloom.

Stocks, Ten-week.—Sow on a warm border, to transplant, if you have not already done so, or provided for your wants by means of the hotbed.

Tulips.—Finish stirring the earth about them in the best bed, or if it has had any rain to run the surface together, do it a second time. As the buds rise, continue to give them all the air you can, but keep the covering ready to use in an instant, in case of heavy rain or hail, which is not uncommon this month. All the outer beds are of less importance, and they are rarely protected unless they be of any choice kinds. Early Tulips are in full bloom; and if easily protected from the sun, the flowering season is greatly lengthened. Showers, wind, and hail frequently damage them.

Generally have your attention fixed on the necessity of keeping borders, paths, and beds free from weeds; the gravel-walks may be

pecked up, raked, cleaned, and rolled, and the rolling must be repeated after every soaking of rain.

THE VEGETABLE GARDEN.

Angelica.—This plant is largely used as a preserve, and was at one time a popular salad, blanched, and eaten as Celery. The plants may be taken from the seed-bed or the stove-bed, and planted out two feet apart every way.

Artichokes.—Level the earth about these plants to just below where the shoots spring, and remove all but the two or three strongest; the shoots so removed will strike root, if young plants be required.

Artichokes, Jerusalem, may still be planted.

Asparagus.—Seed may be sown either in beds where they are to remain, or—which is the best way—in beds to be transplanted; in the former case, put two or three seeds in a hole, that when up the weakest may be removed, and one strong plant left. The beds cannot be too rich, and the holes should be made in rows nine inches apart, and the rows also nine inches from each other, if there be more than one. Stir the earth on established beds, if not already done, and the earlier in the month the better.

Basil, a herb in general request, is frequently sown in heat and transplanted; sow the seed this month on a warm border, and it will be quite forward enough.

Beans, Broad.—Sow succession

crops; earth and clean those that are forward.

Beans, French.—At the end of the month sow some in rows; let the Beans be six inches apart in the row, and the rows two feet from each other; draw drills two inches deep, and when sown, fill up with the earth drawn out.

Beans, Runners.—Sow a few in a warm situation, easily protected, to be planted out hereafter. Some will sow them in heat, but it is unnecessary, and forwards them but little; for the check they receive from even a slight frost after they have been raised in heat, counteracts their early advance, and those sown in the open ground frequently pass them. If you grow them purposely for seed, let all the early ones grow, and keep the later ones picked close; if you are careless about seed, the few that are overlooked in gathering will be sufficient.

Beet-root.—Sow for the main crop, if not done last month, and carefully attend to the directions to dress, trench, and bruise the soil. If any are already up, the sooner they are hoed out to nine inches apart, the better.

Borage may be sown like other herbs, either to be thinned out, or planted out six inches apart.

Brocoli.—This month, about the middle, sow the first crop of all the Brocolis you intend grow-

ing. We need hardly say that if there be any faith in catalogues, we may calculate on abundant sorts; but as one kind bears many names, half-a-dozen kinds of very distinct character will do for the largest establishment. Early Purple Cape has half-a-dozen names; Green Cape the same number; Green Close-headed much the same; Sprouting goes by quite as many; Late Dwarf Purple has eight names; Portsmouth and Sulphur have four or five names each; Grange's early Cauliflower-Brocoli has nine names; Early White has only four names; Knight's Protecting is said to be the most hardy of the whites; Spring White has eight names; Walcheren is considered good when true, and Snow's Superb is held generally to be an improvement on it. Upon the whole, it is better to sow Early Purple Cape, Sprouting, and Walcheren, or Snow's, and take the seedsman's recommendation for any other, because he will not give you the same. The best way to sow this is in rows a foot apart, because you can always thin and weed them easily, and also draw the strongest for pricking or planting out. If you prefer sowing broadcast, let the beds be four feet wide, that you may reach the middle from either side, and leave alleys between them eighteen inches wide.

Brussels Sprouts.—Sow these in the same way as the Brocoli.

Cabbages.—Sow for a principal crop in beds broadcast, or in rows as recommended for Brocoli; but as the quantity is in general greater, broadcast may be preferable, so that it be in beds that

can be reached in the middle from the side alleys. Those which have been planted thickly, at half the proper distances, to pull out as greens, must be thinned, whether they are required as greens or not, for the cabbages must have their proper room; they ought to be a foot or eighteen inches apart in the rows, and the rows two feet from each other. Hoeing the surface, and drawing earth to the stems, is always of service to the Cabbage tribe. You may now clear away all the stems and remains of cabbages that have supplied you with sprouts when you could get little else.

Cardoons.—Continue blanching if they are worth the trouble; we think them very useless now that we have much better vegetables; indeed, they should not have space in our garden while Sea Kale could be grown.

Carrots.—At the beginning of the month sow Carrots for a full crop, and then hoe out any that are forward enough, removing at the same time all the weeds.

Cauliflowers.—Those under hand-glasses are getting forward. Stir the earth about them, and draw some up to their stems. They must now have the glasses wholly removed on fine days, and in dry weather have some water, as the glasses have deprived them of their share in wet weather. Plant out the remainder of those that have been protected all the winter in frames, and draw earth to the roots of those that were planted out from the patches under hand-glasses. Plant out also any that are forward enough of the spring sowing.

Celery.—Prick out on a good

piece of ground any of the seedling plants that are large enough. They may be set out three, four, or six inches apart, according to the size you intend to plant them out. If under a frame, or in a declining hotbed, they will be forwarded more. Sow seed to follow those sown in March, or for a general crop. All the very early plants are to be put out small; for they are apt to run up for seed. Most depend on March or April sowing for their main supply.

Coleworts.—If you do not rely on young Cabbage plants for Greens, you may sow a few of the Rosette Colewort. There is only this and the Hardy Green sort worth growing,—the former for the summer and autumn supply, the latter for winter and spring. Sow as you would Cabbage.

Cress, American.—Sow, for it is always useful in salads, and can be picked the greater part of the year.

Dandelion.—Keep clear of weeds, and hoe well between the plants. When these are wanted, they should be dug up; for if any of the tap-root be left in the ground, it becomes itself a weed, and a troublesome one too, especially on lawns.

Fennel may be sown, if not sown before or if wanted; for being a perennial, a bed once formed is as good as mint: but we prefer autumn sowing when we have a choice; nevertheless we should not wait for autumn for our first supply. If you devote a bed to it, sow thinly broadcast, and hoe it out. If the supply required be small, sow a row anywhere.

Herbs of all sorts may be sown, if not already in the ground,—

Parsley, Thyme, Marjoram, Pennyroyal, Clary, Hyssop, Lavender, Rosemary, Mint of all sorts, Purslane, Liquorice, Rampion, Rocabole, Savory, Scorzonera, Taragon, and others, or such of them as are in request, for many of them are useless to a great majority of families.

Horse Radish.—Merely keep the beds clear of weeds.

Kale, Sea.—Seed may be sown either on beds for transplanting or at proper distances where they are to stand; we prefer transplanting. Look well to the crop in the open ground, because the indication that the crop is almost ready is the disturbing of the surface here and there by the growing shoots, and these are discoloured when the air is let into the earth. They should be cut directly the tips reach the surface.

Kale, Scotch, or *Borecole*.—This is one of the prettiest crops in the kitchen garden, if the sort be good and well curled. There is a variegated kind, which is really very beautiful as a garnish, and even better to eat than the green, being thicker in the leaf. But independently of the appearance of the Kales or Borecoles, they are extremely hardy. Sow both kinds for planting out.

Leeks.—Sow, if you have not sown already; and Leeks are the better for being planted out. When they are large enough they can be picked out like Celery, three or four inches apart, to grow into strength for planting out hereafter.

Lettuce.—Sow the several kinds that are useful,—Cos, brown and white, and Cabbage, if you wish it; but we doubt if any one will

leave the Cos for the Cabbage, which is only tolerable in winter, and useful because it will stand harder weather. Plant out any that are large enough,—they will do at one foot apart in the row, and eighteen inches from row to row; some give them more room, but unless for large sorts, which are not desirable in families, it is wasting room.

Nasturtiums.—A very good pickle, and used by many as an apology for Capers; may be sown against palings, or to be supported by sticks, like scarlet runners; they make an excellent warm pickle, if the pods be gathered while young, before the seed begins to harden.

Onions may be sown still, although too late for them to get a large size; but at the end of the month some of the silver-skin sort may be sown for picklers: any of the large sorts, if sown in poorish soil at the end of this month, or even next month, will also ripen small for pickling.

Parsnips.—Sow in the same way as Beet, if not already sown, to be treated in the same way.

Peas.—Continue to sow at proper intervals; some of the large marrow-fat kinds will do well now for those who will take the trouble to stick them properly. Continue to attend to those up, earthing, sticking, and weeding.

Potatoes.—Plant any that remain, but we are no advocate for late planting; too many of the failures in crops of Potatoes arise from this cause, not that there is the least disadvantage if the eyes have not begun to shoot; but if you buy the seed Potatoes at this late period, they may have been

growing away half their strength before you get them. If you can keep the tubers from shooting, they may be planted at any time, but you can only be safe when you know they have not grown.

Radishes.—Continue to sow according to the supply required; Turnip Radishes are the best now.

Salads.—These comprise all the salad herbs, and the small ones especially, Rape, Mustard, Cress, and Sorrel; sow for a continued supply.

Sage.—Sow the seed where the plants are to remain, or for planting out in the herb-bed.

Savoy.—Sow the same as Cabbages, but not for a full crop; it is a winter cabbage, and does not tell well among greens until frosted; when they get full-hearted during the warm months, they are tough.

Spinach.—Sow for succession at proper intervals for the required supply, and thin out those crops already up and forward; clear off the winter Spinach, and dress the ground for other crops.

Turnips.—Sow a full crop; the ground must be nicely dressed for them; thin those already up.

The most general mode of sowing is broadcast, sowing thinly over the whole space, and then cutting out with a hoe all the useless plants, leaving the remainder only six inches apart. There are many different dressings for turnips, but in ordinary gardens there is nothing better than well-rotted stable-dung, or dung from an old hot-bed. Amateur gardeners, who are not fully equal to ground-work, will do better by sowing the crop in drills six inches apart; for the distance one way is regulated for them.

THE ORCHARD AND FRUIT GARDEN.

In this department there is no particular care required among any of the standard trees; but if there appears any sign of blight, caterpillars, or grubs of any sort, the liberal use of a garden-engine or a syringe, wherever the bloom is not too forward, will be worth all the trouble. Grubs may be sometimes washed off by myriads, and they will not get up again. If the bloom is open, the operation is more difficult and dangerous; but another mode of disturbing these pests is often efficacious. Light a fire with all the dry rubbish you can scrape together on the windward side, so that the smoke shall blow among the branches, and it will make great havoc.

Espalier Trees may be much more easily cleaned of vermin, because within reach; and this should never be neglected. The garden-engine or a syringe will be of great service.

Wall-fruit Trees.—Here there is still more danger of the gardener's torments brewing mischief; but the syringe and clear water will do wonders, either as a preventive or a cure. The gardener must now rub off all useless shoots, that is to say, shoots that are coming where they are not wanted; such as all those that are coming in front of the tree, and grow outwards: these are called foreright shoots. Then, again, all that push where there are plenty already; for by rubbing these off, all the vigour necessary to support them will be

divided among those that are growing in the right place to fill up the vacancies in the wall. Apricots, Peaches, Nectarines, and Plums alike require this; and, above all things, the trees and walls must be closely examined for vermin; for a few sunny days will hatch eggs that are scarcely perceptible, and the trees would in a short time be covered with grubs or caterpillars. Some of the old gardeners used to syringe with lime, sulphur, and tobacco-water; we have never been forced to this, for clean water, sent through a fine rose with "gentle violence," has always proved sufficient with us, and the trees and walls looked much better than when smeared over with dirty-white looking wash. But of late years we have observed on Morello cherries a strange slug-like grub, that eat the leaves clean to their fibres; and nothing appeared to remove them but a brush and hot soapsuds. They, however, did not appear till the fruit was all gathered; and we certainly did not think the disturbing of them worth the trouble, for the leaves had done all their work. Whether there was any indication of these beforehand, or when we ought to have looked for them, we have yet to learn. The visitors were new to us, and, so far as we can judge, they did no mischief to the trees.

Currants and Gooseberries sometimes suffer greatly from the caterpillar: whole acres of them have been stripped to the wood,

soon after they were in leaf; and the result is fatal not merely to the crop for the season, but for the bushes also: and those who would be spared this mortification must either set children to pick them or brush them off; others smoke them, by burning rubbish on the windward side of the plantation,—others wash them off with the garden-engine,—while many use all the remedies, and scarcely then succeed to their wish. However, there is nothing like early inspection and prompt application of the means the instant the intruders are discovered. After any of these means are used, the ground under the trees will be found sometimes covered with the half-dead pests, and raking sharply will generally finish them off so that they do not recover.

Grape Vines.—By the middle or end of the month these may have advanced, and the first business is to remove all useless shoots, and, in fact, in all respects to treat them as directed under glass, which we have pretty well explained, removing all the barren as well as other branches that are coming where they are not wanted; but where you see a vigorous growth, it may be left to see whether the branch may not be strong enough to displace some worn-out branch. In removing useless shoots, take them off above the lowest joint. If the vine is grown upon the rod system, you have to see that the best new shoots are reserved to run up as the rods, for next year. If upon the spur system, encourage strong shoots where they are most wanted, and remove weakly ones altogether. In backward seasons, the

vines out of doors will not trouble us this month. Once made to understand that the fruit comes on new wood, growing from the ripe wood of the last year, and it matters not how the vine is grown; so that the proper wood is retained, and the superabundant and useless removed, the crop will be all right. Vines may be grown, as they are abroad, without walls. In this case, they are annually cut back to reasonable dimensions, like currant and gooseberry bushes; or if grown on trellises, arched or otherwise, the principle of pruning is the same, only that where the plant is to be a cover or shade, or is to fill up any particular station, the spur system is the best; the main branches have not then to be removed, which would be very troublesome, when annually renewed. Vines out of doors will be all the cleaner and better for occasional syringing.

Raspberries.—See that the canes are well fastened to their stakes, or rather see that none have given way or are slightly held; for when the plants grow, the wind has great power over them.

Strawberries, whether in beds or borders, must be well weeded and cleaned, and straw or litter should be put on the ground between the rows; and by saturating this litter a few times with lime-water, slugs and snails, and even worms within its influence, are destroyed. If you cannot procure litter or straw, then the ground itself may be liberally watered with lime-water. The water should be strong enough to have a pungent taste, or it will not be efficacious. As the runners push out from fruiting plants, let them be taken

off, unless you really want young ones, when the runners are of more value than the fruit: in this case, peg them down at the joints to make roots, or bring a number of pots filled with mould, and peg the strongest joints to the surface of the soil in the pots, where they will shortly root, and may be cut from the parent plant. These will soon fill their pots with roots, and will require to be shifted into larger ones, and treated as directed for forcing.

Cleanliness on the walls is absolutely necessary, and trees require it: nothing harbours more vermin than dirt and dead leaves in the corners or forks, which catch them as they fall, and retain them till they are rotted. Currant-trees, in particular, are subject to this; and they not unfrequently retain them, with all the eggs that may have been accumulating during the autumn. Let the forks where branches shoot from, and which are generally full of the remains of leaves, be brushed out or washed out clean: the garden-engine will do this effectually, if water be directed down upon them with force; but removed it must be.

Canker, and mildew, and cotton-blight will now and then pay a visit to different trees; but these are the effects of ill-health, not the cause. By strict attention to drainage below, the healthy state of the root at planting-time, to clean cuts in pruning, to avoid pressure in nailing, and general cleanliness, these visitations will generally be avoided; but if the root be bruised, the ground cold and swampy, or gravelly, or the tree planted too deep, you may

expect them all. When apple or pear trees reach the gravel or wet clay, they invariably go back, the ends of the branches die, and but little healthy bearing wood remains: pruning is useless—the root of the evil is at the root of the tree. When it is worth while (as in the case of any favourite and scarce fruit), we must first dig down to the root, and see what is amiss there: sometimes a very strong shoot goes a long way into the ground, or a tap-root descends direct; and these having travelled the greatest distance, most likely have reached the mischief. Bare these roots some distance, to see how far they are healthy, and cut them off: this will doubtless cause a vast loss of nourishment to the tree; meet this by a corresponding sacrifice of the head. Remove the most unhealthy limbs altogether; cut away all cankered portions, by sacrificing the wood half-way through the branch, if necessary, because any canker left will increase; shave off the lumps and all the sponge-wood beneath, and do not leave the wound until you come to the clean solid wood, and you can then judge whether the limb can be saved. If not more than a third part is cut away, and everything is clean, the part will heal and do well; but so sure as any canker remains, there will be mischief. Many gardeners use washes of various descriptions to cure this malady; but they are one and all useless while any portion of the disease is left, and they are not wanted when it is removed. Caustic washes of any kind will remove living pests, such as cotton-blight, which greatly re-

seembles the mealy-bug of our hot-houses; and of all washes, none beat strong soapsuds, used warm with a stiffish long-haired brush, like a painter's, that will reach into the corners. Trees, like pigs, will often thrive in their dirt; but the efficacy of frequent washings is equally acknowledged in both cases, and equally apparent in the health and weight of the pig and the improvement of the tree; and there is nothing prevents so much as cleanliness the attacks of vermin or facilitates their destruction when they do attack. The daubing of trees with lime, sulphur, tar, or caustic mixtures, proclaims to all visitors that there is something wrong, and it is more frequently in the gardener than in the trees.

THE NURSERY.

Dahlias for extensive propagation should now be put to work in earnest, and the cuttings struck in bottom heat. When the shoots are two inches long, cut them off under the lower pair of leaves, remove the leaves, and put them round the edge of a pot. Plunge the pots in the medium, whether it be tan or any other subject; water occasionally overhead, and keep the house or hotbed or pit close at night and nearly so by day; continue to take the cuttings off, and as you can see by their starting into growth when they have rooted, turn out the ball whole, and the root will appear next the pot. They may then be put into thumb-pots, and into heat, where they will soon establish themselves; and when grown to three or four inches high they may be gradually inured to the greenhouse, then to the cold frame, where they will harden off.

The *Seeds* of Trees, Shrubs, and Nursery plants of every description must be sown this month; that is, such as were not sown last month.

Seeds of the *Pinus* tribe and

Coniferæ in general should be sown in boxes, pans, or wide-mouthed pots, and placed in a cold frame. They are convenient to move to any situation when growing. Some gardeners mix up the seeds of choice subjects, such as are costly, with soil, and filling a large pot with them, start them in heat; when they have reason to think they must have started, they turn out the lot, pick out those that have germinated, put them singly into small pots, and grow them on, while those that have not started are returned to the pot they were in, and are put back into heat, and after a reasonable time they are examined again to see if any more have germinated.

Seed-beds must be watered in dry weather, whether they are up or not; and give enough to soak the earth some depth; superficial watering is not good for anything. Abercrombie says, Little and often; but it is better let alone altogether if not done effectively.

Hollies may be grafted now, the various fancy kinds on the common green, the early part of the month. Hoe and destroy

weeds in all the plantations, young or old.

Seedling plants of all kinds must be watered in dry weather. Give them plenty to saturate the bed, and one such watering will be of more benefit than a dozen slight ones.

Cuttings of Gooseberry and Currant bushes, and of all sorts, will require watering in the absence of rain.

Look over all grafted and

budded trees, and remove the shoots that come from the stocks. This must be done frequently, for the growth of wood from the stock will greatly retard the graft or bud, and if neglected, will destroy the buds and grafts altogether. See that the clay upon newly-grafted trees is sound, and if not, repair it.

Examine the beds of plants in stock, and keep them clear of weeds.

PITS AND FRAMES.

Auriculas are now rapidly coming into flower, and may be transferred, as fast as they are forward enough, to the hand-glasses; and if you have a proper stage for their display, remove them from the hand-glasses as soon as the flowers are perfect, having treated them as directed last month.

Carnations and *Picotees* may be all removed now into the pots they are to bloom in. The potting should be all finished as early as possible, if not done last month, and the pots set on a proper stage; or, for want of one, let boards be supported on flower-pots, to keep them off the ground, and standing in pans of water, to keep insects from crawling up to the plants.

Pinks and *Pansies*, if any are left in their small pots, must be removed to larger ones, or put into the ground.

Polyanthuses and *Primroses* in pots are apt to get the red spider, if not constantly and carefully watered, and allowed plenty of

air. They will only require to be covered at night, and even then the glasses may be lifted behind. They must be constantly shaded while in bloom.

All the half-hardy plants in the frames must be exposed to the air; and, unless there be an unusual quantity, they may have all the rain: simply covering them at night will be sufficient. All the seeds of choice perennials may be sown in pans and wide-mouthed pots, if not already done, and put into the cold frame or the greenhouse. If any seed is up, carefully protect it from the sun, wind, and heavy rain or hail; for while they are small an hour's neglect may lose them all: and as soon as any seedlings are large enough to handle, they should be pricked into pots of three or four inches diameter, placing them round the sides, an inch apart; for they gather great nourishment from the pot, and it is besides a great protection. Offsets of *Auriculas* that have rooted may be potted off singly into

three-inch pots; small plants of Polyanthuses and Primroses that have filled their pots with roots may be shifted into larger ones; and all the cuttings of various plants that have rooted may be potted off. Those which have been standing through the winter, and may not have struck root, must be kept moist some time. As dryness and cleanliness are of

the highest importance in close glass structures, let the bottom of the frames be brushed out well, all the dead leaves and dirt of all kinds be cleared away, and the plants all returned to their places. Choose a dry mild day for this work. Pits with heat may be treated the same as hothouses or greenhouses, whichever they are to represent.

THE FORCING GROUND, ETC.

THE houses in which we are forcing fruit must be kept at something like 75° or 80° by day, and may fall 10° or 15° in the night. The watering of fruit-trees in pots must be carefully attended to, because as they have all their supply artificially, the roots cannot wander after moisture. Liquid manure occasionally, instead of plain water, will be found beneficial.

Apricots, Cherries, Peaches, Plums, and Nectarines are all the better for syringing and liberal watering till the fruit begins to ripen, when water must be more seldom administered, and syringing altogether discontinued.

Cucumbers.—Keep up the heat with fresh linings of hot stable dung. Take off the branches that are barren, and regulate the others so that they cover the bed equally. Stop them at the ends to induce lateral shoots; cut back those which have borne their fruit, and do not indicate further bearing; and when the branches are too crowded, remove those which are of the least use, or are the least promising. Shade them

during the very hot sunny hours. You may now make other hot-beds to succeed the present ones, and treat them the same way as the earlier ones have been treated. You may also prepare for growing Cucumbers under hand-glasses, by digging a trench four feet wide and a foot deep, and any length you may require, filling this with dung, and, if there be plenty of it, building it up two feet above the surface. The soil taken out will do to put on the dung when this has heated. Put on three or four inches of the mould, and when the heat comes through this, put on three or four more. Lay a heap of mould in the centre every eight feet, and cover with the hand-glass until it is warm all through the bed. Set your Cucumber plants in the same way as you did in the frame, and cover with the glass. If this has a ventilating top to let the steam out, so much the easier is it to give air. They must be watered to settle the earth about the roots, and shaded in the middle of the day from the hot sun, until the plants are well established, but

they must have air occasionally, by tilting the glasses, and they must be matted at night all this month and perhaps next. Stop the plants, and treat them the same as those in frames, propping the glasses to let the branches through, and regulating them as in frames, and also cutting back barren shoots to induce more fruitful ones.

Figs.—Those regularly planted in the house require a good deal of syringing; but figs in pots can hardly be watered too much, until the fruit begins to ripen, when they do not require it so often, but the soil must never get dry.

Melons are in every particular so much like the Cucumber in their requirements, that we need only say, treat them the same way in frames and under hand-glasses; but as they ripen you may be more sparing of the water; in fact, they must not be watered so frequently.

Pines.—Plenty of heat; by day 70°, 80°, or even 90° will do no mischief, if the watering and syringing be attended to. We have before observed that the pineapple is by no means dainty; and where there are plants in all stages, this is a great object. The sucker which is on the plant from which the fruit has been cut, will thrive in the same pot, and, if earthed up, will fruit again much sooner than when it undergoes all the details of striking and growing up through the various stages assigned to it in the succession pits.

Strawberries.—The principal attention required is to the watering and giving air; it is no use supposing the plants are at any par-

ticular stage of growth, because there are in most cases some in bloom, some ripening their fruit, and some only just put in the house. All the time the fruit is swelling, they take a good deal of water, therefore they must be examined more frequently, to see if they are dry, for it does not agree with anything to water it while wet.

Vines.—The treatment of Vines in the forcing-house, which we presume to be used for other subjects as well, differs very little from the treatment required out of doors: all the rules laid down for pruning and stopping are the same. When, however, the fruit in the house is large enough to thin, that operation must be performed. Perhaps the heavy shoulders of the bunches would be the better for being supported by strings or bass-matting to the roof, so that the weight will be sustained, instead of laying their weight upon the bunch and spoiling the colour of the upper part and the under part of the shoulders. Continue to stop useless shoots, and to sustain by loose supports the new wood intended to be ripened. It must also be remembered that as the health and strength of a potted plant is wholly dependent on the supply of nourishment given to it in the shape of water or liquid manure, you must never let a day go by without examining every plant.

VEGETABLES.

Asparagus.—Continue to force as long as it is required; and when a bed is spent, pull up all the roots, and throw them to the rubbish heap. Level the soil again,

and make use of it for anything that requires a declining hotbed; for instance, prick out Celery plants in it, or sow annuals or Scarlet Beans to plant out; or fresh line it to get up the heat a little, and sow Tomatoes, Chilies, Capsicums, and the like; in fact, there are twenty uses to which a declining hotbed can be applied.

Beans, Kidney, want nothing but watering when dry and gathering when ready.

Carrots, Onions for drawing young, *Radishes*, &c., will likewise want all the air they can have without lowering the temperature. This therefore should be given while the sun is out, and water occasionally when the soil gets dry.

Peas that have been forced should be in full bearing, and the only care they require is the supply of water, of which they absorb a good deal, and of air when it can be given.

Potatoes merely want watering and air occasionally, and shutting up close and covering at night. The earliest have been fit to eat some time.

All the salads and herbs require water and air, but continued protection.

FLOWERS.

Camellias no longer want the aid of the forcing-house. The latest are in bloom in their own house in April and May.

Geraniums.—Those in the greenhouse intended to be hastened must be put in the warmer atmosphere this month, to succeed those now in flower, and bloom early in May. The caution of last month must be repeated,—to prevent or

destroy the green fly, by fumigation and syringing; and water must be administered as often as the soil dries.

The American plants, *Roses*, and Flowering Shrubs, should be taken to the conservatory as fast as they come towards bursting their bloom, and others may take their places to succeed: but this is the last month that will require further supply; for those now put in will hardly be out of flower when the open air plants will be ready to take their places: and this applies equally to *Azaleas*, *Rhododendrons*, *Deutzias*, *Lilacs*, and other hard-wooded plants.

The whole of the subjects in the floral forcing-house, or that are placed in the stove to drive them on, will require attention to their watering, keeping clean, and giving air. The flooding of the floors to raise a warm vapour, and even watering the hot pipes and flues to increase it if necessary, will be beneficial to almost anything.

The forcing-house may be made generally useful, for herbs potted up and put therein will be advantageously pushed on, therefore others may be potted to succeed those already in. This particularly applies to *Fennel* and *Mint*, which in some situations, and in very backward seasons, may be otherwise scarce when in great demand. It will also be used in the absence of other conveniences, to raise *Balsams*, *Cockscombs*, *Stocks*, *Asters*, and other annuals for early blooming; but when up they must be gradually removed to lower temperatures, such as declining hot-beds, or the geranium-house, or to a warm greenhouse.

STOVE OR HOTHOUSE.

WE always speak of this as the ordinary stove appropriated to everything that requires heat, but the ordinary stove plants are too often interfered with by other matters; Vines, for instance, are frequently grown in the stove, much to the detriment of plants that want all the light, and not unfrequently one half the plants want a dry heat while the others require moisture. However, we must look to regular stove subjects, which should be taken care of, and the others left to themselves. The *Amaryllis* family of our collections have always some in flower, and others advancing, as well as some past their bloom; all these three are to be treated alike, that is, kept well watered, and in tolerably high temperature, while those which have been at rest, and have not started, may be kept cool and dry, but any that are just starting should be shifted into larger pots, and have the full benefit of the stove.

Ixoras, *Stephanotis*, *Alemandas*, *Echites*, *Hibiscus*, and all fast-growing plants, must be watched incessantly for the detection of vermin. They are now rapidly advancing, and require heat, moisture, and light, with as much air as can be given without reducing the temperature below 65° to 70°. On the slightest appearance of the mealy bug they must be washed with soap-suds, and if a solitary green fly appear, fumigate the house; frequent syringing is desirable, choosing bright days for the work, and shutting up the

house close immediately for a few hours.

Climbing plants, of all sorts, want almost daily attention. They grow fast, and all the shoots want to be laid, or tied if necessary, where they are to grow; for if once allowed to go wild and cling to other plants, or twist themselves into knots to require unwinding, the foliage will be found twisted the wrong way, and it takes many days to bring them right again. All the plants should be frequently turned that they may have a good face any way. Those climbers that are trained on flat wires are exceptions, for they can have but one face, and it must be kept always to the light.

Examine plants which are apt to produce a black sort of fungus on the leaves, and wash it off with a soft brush and soap-suds, or a sponge; for it greatly damages the plant if neglected. The *Francisceas* frequently exhibit this on the older leaves, which if not cleaned will prematurely fall. *Ixoras*, too, will often be found affected with this, and most of the plants with very smooth surface will be attacked; but even this, like most other troublesome visitations, is the result of inattention. Among the causes of all kinds of mischief may be reckoned, neglect of syringing and lack of moisture; checks by allowing the temperature to get too low; want of cleanliness on the shelves and stages and floors in not clearing away dead leaves; these things should be always avoided.

Orchideous plants, like most others, have their periods of growth and of rest; during their growth they can hardly have too much moisture, heat, and shade, and when at rest they want little heat and no water. Thus, when orchids are in the common hot-house, they should be in the most shady part, and be more frequently syringed than any other plants. As their flower stems advance, many of which grow to extreme lengths, they should have some kind of support; a loose tie from the roof will generally answer the purpose, for the only object is to keep them out of the way of other plants. Examine all the growing plants to see if any want shifting to larger pots. Sow seeds of all kinds, and pot off both seedlings and rooted cuttings; the former, if small, may be first potted round the side of four-inch pots to grow

into strength, the latter may be potted singly in two or three-inch pots according to their roots, for notwithstanding the great authorities who boasted the advantages (?) of the "one shift system," nothing is more detrimental to some plants than over-potting, because the longer the roots are reaching the side of a pot the more the soil is watered and deteriorated, and the roots have to meet impoverished and soured compost, but when in a short time the roots can reach the side, and they are shifted into new unwashed soil prepared for them, they push vigorously through it and reach the side again, and so are constantly fed with fresh earth instead of being cramped and starved. Among the young growing plants of all sizes you will find some that want shifting; of course this must be attended to.

CONSERVATORY.

THE plants which have passed their prime, and are not to be tolerated in this show-house of the garden, must be removed to the pits or frames or stove or some appropriate place to complete their growth; first, however, pruning them as they may require before they make new growth. Other plants should be brought in to take their places, Camellias, Roses, Lilacs, Deutzias, in fact relays of forced plants of the same kind as have already gone by. Polyantheses, Primroses, and Auriculas from the cold frames will now assist, and the Golden Double Wall-flower, as well as

the blood-coloured, will make a show. Acacias and Hoveas from the ordinary greenhouse are in bloom without forcing, and many other plants will add to the gorgeous display that the Conservatory now exhibits.

We need hardly repeat our directions as to cleanliness and care in watering. There will be many fine days now on which abundance of air can be given, and advantage should be taken of these to dry the house, by getting up the fire while the lights are all open, to let out the warm atmosphere and keep the temperature down; the lights however

must be closed early. The temperature of the conservatory should not be higher than 50° to 55° by day and 45° by night all this month. If there be, as there often will be, a very hot day, the house should be shaded on those occasions, as the sun would very materially shorten the period of bloom.

The beds and borders should be raked and cleared up almost daily; the falling blooms removed. The climbing-plants must be regularly fastened where they are to grow, and almost daily adjusted until they fill their allotted space, when they may be trained or allowed to hang down as the case may be.

The surface of the soil in the pots must be occasionally stirred to give them a fresh appearance, and the pots should always be washed before they are brought into the house.

Rhododendrons, Camellias, and any other plants that are in the borders of the conservatory, or in pots and tubs, that are intended to be kept after blooming, should be carefully gone over and pruned before they make their growth, that they may be kept in reasonable compass and of elegant form, which without careful pruning they very rarely do, for they grow up into long bare legs, and become very unsightly.

GREENHOUSE.

EXAMINE all the plants that are likely to require a shift into larger pots, and act accordingly. If, however, any are in bloom, it would be unsafe to attempt, but it must be remembered that when the pots are full of roots they want more frequent watering, and a day's neglect might be fatal.

Hard-wooded plants want most attention, and some *Acacias*, *Heaths* and *Botany-bay* plants have passed their bloom by the end of the month. Before these begin their new growth, shorten all the long branches and those that are growing inwards; make due allowance for the new growth, and cut back enough to make the young wood form a handsome bush.

Pot off all the rooted Cuttings into three-inch pots, and water

them to settle the earth about their roots.

Take Cuttings of everything that has wood in proper condition. In most cases they should be of the present year's growth, and should be cut as near as may be to where the young and the old wood meets; young shoots, therefore, one to two inches long, taken off as near the bottom as may be, cut up to a joint, put into a pot of light sandy compost, and covered with a bell-glass, will strike readily, but the glass should be wiped dry every morning inside. The soil must be kept moist, bottom heat will somewhat hasten the rooting, and where anything, such as *heaths*, may be more delicate than ordinary, the pot may be filled within half an

inch of the top, and be neatly levelled, then complete the filling with the half-inch of silver sand. This must be watered with a very fine rose so as not to be disturbed. The cuttings must then be stuck in pretty close together to the bottom of the sand, and to touch but not enter the compost. Whether there be bottom heat or otherwise, the pots and glasses must be shaded from the sun, and daily attended to, that they may be shaded no longer than necessary. Nothing is better than paper to shade them, and nothing easier; half-a-dozen sheets of white or printed paper would shade a great many.

Clear the surface mould of the pots from moss or rubbish, and if

the soil at the top be spent or sour, stir it as low down as it can be done safely, throw out the old, and top dress with new soil. Two parts loam from rotted turf and one of dung rotted to mould is a fine compost to use for everything, with additions adapted to the plants. Heaths grow well in one part of this and two of peat rubbed through a coarse sieve; half this and half peat is good for Botany-bay plants of more woody growth; two parts of this and one part peat is an almost universal compost, for nearly every stove and greenhouse plant will grow in it.

Give all the air you can in mild weather, and keep the temperature as low as 45° if you can.

HEATH STRUCTURES.

PLENTY of air, judicious watering, timely shifts, and constant attention to cleanliness, are now very necessary. The blooming plants should be shaded from the hot sun; struck cuttings should be potted in two-inch or thumb-pots, which run two inches and a half, and the tops pinched out to make them bushy. Small growing plants that have filled their pots with roots must be removed to others a size larger, and vigorous shoots stopped. Cuttings may be taken off when ready, and the best are young shoots an inch to an inch and a half long cut at the lowest joint, where they spring from the old wood. They may be treated as recommended in the greenhouse

department, where, in fact, most people do their cutting business, or in a propagating house, which affords a little bottom heat; not that it is necessary, though it may hasten the rooting a little.

Large specimens, according to the present mode of showing, require sticks to each of the branches. If this must be done, the sticks should be thin and of a dark colour, to conceal the ill effect as much as possible. As this family is large, the habits various, and the bloom comes at different seasons, their different stages of growth will require attention, and the various operations must be performed sooner or later as the case may be, depending in fact on the plants themselves.

GERANIUM HOUSE.

THIS is rather an important month. The shoots are all throwing out the bloom-buds, the most critical and tempting period for the green-fly, and when they can do the most harm in the least time. It is of the last consequence that they should be looked for every day, and the house instantly fumigated with tobacco-smoke. In doing this it must be observed that the smoke spreads, and the upper part of the house soon fills, but you must persevere until it is filled to the ground, for all the plants below the smoke will be completely unaffected. If a plant covered with the insect were placed on the ground, it would be extremely difficult to kill any of them, because the vapour is not sufficiently dense to inconvenience them. The fumigation should be done in the evening, and the house completely closed; the next day the plants should be syringed to clean them.

It may be that many of the plants now require their last shift before blooming; some growers venture to use bone-dust and other exciting matter in the compost, but Mr. Dobson, whose name is connected with some of the best varieties in cultivation, and whose success has been for many years conspicuous, has long confirmed the opinion we have always entertained about exciting composts, in the treatise he has published, in contrast with simple loam and dung, and recommends no bone-dust, nor any other nostrum. It is true he follows in the

wake of exhibitors, and puts supports to every shoot, because the Horticultural Society gives prizes according to the number of sticks rather than the merit of the grower; and for those who seek "the bubble reputation," and judge of this by the number of prizes won, now is the time to get supplies from the timber-yard, and tie every shoot that promises a truss of flowers.

Shading perhaps rather belongs to next month than this, but the burning heat of the mid-day sun must be shut out by thin calico, or something of the kind, that will not exclude the light. The morning and evening sun will do no harm until the buds begin to show the colour, when they must not have a ray. Air should be given in abundance whenever the weather will allow it, and that the lights may be drawn up and down as the case may be, the shade should be under the glass, not outside it.

Seedlings will now be soon coming into flower, because, not having been stopped, they will be more forward. As they open, reject at once all that are inferior to the varieties we already possess. A really good advance towards excellence is valuable; nobody, however, has a right to expect many such, and to retain those which are inferior is absurd; there has been too much of this. A dealer, or a raiser who sells to a dealer, will too often find half-a-dozen good enough to sell, and although he gets no more for the

six than he ought to get for the best one, out they all come the next year at the price of novelties, when he, as well as the dealer, well knows that five are worthless. We know, and they know, that the petals should be thick, broad, blunt, and smooth at the edges, and slightly cupped; that the flower should be circular, without puckering or frilling, and where the petals lap over each other the indentation should be hardly perceptible; that the petals should lie close on each other, so as to appear a whole, rather than a five-petalled flower; that the stem should be straight, strong, elastic, carrying the blooms well above the foliage; the foot-stalks of the individual flowers should be stiff, and of sufficient length to allow the flowers to show themselves on an even truss, fitting compactly edge to edge, and forming a uniform bold head; both upper petals should be alike, both side petals alike, and the lower petal uniform; that all white grounds should be very pure, and the colours, no matter what they be on the white, should be decided, well-defined, and by no means flush into the white; that the spots or blotches in the upper petals, or the marks on any other,

should not break through the edge. Colours being a matter of taste, do not affect the real properties so much as other points, unless it be on the score of novelty. The plant should be shrubby in its habit, the foliage close, and of a rich bright green, the joints short and strong, able to support themselves in every part without assistance; the flower should be large, not less than five on a truss, and come at the end of every shoot. Whatever other ground-colour a flower may be, whether purple, crimson, lilac, rose, or pink, it should be as pure as the white, without shading or clouding, and the marks, whatever character they assume, should be distinct, well defined, and of a good contrast. All this we have given some twenty years ago, and flowers are only valued according as they approach this ideal standard: reach it, they perhaps never will. Look at your seedlings as they open, and if they do not come as near to it as those already in cultivation, set them aside; unless, indeed, there is a distinct new colour or character, when an inferior form may be excused, for we should hope to breed the same character of a better form, and save the seed for that purpose.

CAMELLIA HOUSE.

THE chief attention now required is in watching the new growth, taking off the buds at the ends of the branches which have blooms, and are long enough, for if they are allowed to grow, the plants will get ugly and out of shape; the shoots ought to be

watched as they advance. By shading the plants now in bloom or bursting into flower, whenever the sun is shining hot, they will be prolonged in their beauty, and when they are growing they must be kept in the house, have plenty of air, but no draught nor cold

wind. If any of the plants are pot-bound or the roots have begun to mat next the pot, they should be shifted into larger ones, but the fibres must not be disturbed. Grafted plants which have begun to grow are in nurseries allowed to go on their own way, but if we desire to have handsome plants the upright shoot may be stopped at the third pair of leaves, and shifted, that the lateral shoots may grow and furnish lower branches. Struck cuttings of stocks may be potted off into three-inch pots. The best soil for Camellias is two parts loam from rotted turf, one part rotted dung, and one part peat, well mixed.

THE VINERY,

So called because appropriated exclusively to that plant, may be but little forwarder than those on the wall, or may have the fruit ripe, and fit for gathering, or may be in any stage between the two, or may comprise many compartments, in which there are vines in all the stages of advancement. Merely directing for the month of April, without conditions annexed, would be but little use; we have already treated of the Vine in the forcing-houses sufficiently for ordinary establishments, but where the Grape forms the principal feature, and there are different houses, with the Grape in all stages, we ought almost in the same month to give directions for the whole culture of this king of all fruits, for the Pineapple is not so valuable; when therefore, we, on a former occasion, stepped out of our month, it was because Vines step out of their season. A few additional memoranda founded on the stage of the Vine, instead of the month of the year, may not be amiss, according to the state of the growth. However late the Vine was put to work, it would be one or two months forwarder than those out of doors; when the Vines break, and have pushed out their first few inches of growth, those with fruit on are left, and all the weak spindly shoots by the side of them rubbed off, the fruit branch only being left to grow. As soon as they advance, and require support, be careful not to confine them; when laterals appear, and have grown three or four inches long, pinch them off close to the lowest leaf; remove all over the Vine the shoots that are not strong enough for bearing wood. As we reach another stage, and the bunches begin to develop themselves, there may be one, two, or even three bunches, on a bearing branch; it is not desirable to have more than two, and if the Vine be pretty well covered, one handsome bunch is enough. Let the branches be shortened to the second leaf above the fruit, or if necessary to the first; this is generally done according to the convenience afforded for nailing the fruit branch, or fastening it firmly. Continue to pull off all weakly and useless shoots, and fasten the strong ones that they may not be damaged by their own

weight. The next stage may be called the blooming, during the period of which they must not be touched. When they are as large as peas, commence thinning them according to your taste; some prefer very large berries, and few of them, but there is moderation to be observed. The first thinning will not be the finish; give all the berries room to swell, and in two or three weeks, or a month, you may go over them again, to take away all the smaller ones, and leave the branches even and handsome; and a month after this, or perhaps before, you must give them the last thinning, or rather examining, for the thinning will be now limited to removing a superfluous or an ugly berry here and there, that escaped your notice before. Pinch off the ends of the shoots intended for bearing, to stop them, when they are long enough, and that will make them strong enough. During all this period the temperature, the syringing and steaming, the giving air or excluding it, according to circumstances, must be regularly attended to; and as the grapes begin to colour, remember that, as we have already observed, the syringing must be discontinued, but not the steaming. The flooding of the floor, and watering of the pipes to throw a gentle vapour into the house, will now be beneficial once or twice a week. The temperature may now be raised, and advantage must now be taken of a hot sun to give air, because the temperature will not thereby be lowered too much; 70° to 80° by day, and the natural decline of 10° to 15° by night, will be satisfactory. Now whether

all these stages of growth come in summer, autumn, winter, or spring, the treatment at each stage must be the same, except that there may be more trouble in carrying it out, and regulating the temperature. As the branches ripen, we need hardly say the most forward should be cut first, and as soon as cut, the branch which is cleared of fruit should be cut back to the base or lowest joint. In looking for information in Grape-growing it will be necessary to look back a little, for the best hints that can be given, spread over a year, may not in any one month exactly suit the state of a man's Vines. In the autumn we shall have something to say of Vine borders, because all may plant in one season, whatever they may do afterwards; and at the time of planting we may say something about sorts, but we can hardly refrain here from noticing a new and splendid kind exhibited last summer, called the Golden Hambro', now belonging exclusively to Veitch and Son, who are about distributing it; it has all the fine points of the Black Hambro', large handsome berries, noble form of bunches, and the colour like so many globes of amber. One of the finest acquisitions that can be imagined to the dessert.

Vines in pots only differ from those in borders in the necessary supply of earth and water; they must not be allowed to dry, and when the pot is too full of roots, turn the ball out, and put the plant in a larger pot; the greatest care must be taken not to disturb the fibres of the root, as it would spoil the plant for the whole season.

WINDOW GARDENING.

THE plants in dwelling-houses now begin to be interesting. The Geraniums have recovered their foliage, and are pushing their way towards blooming. Have a care for the watering, not often but well. Never water while the soil is damp. If the pots are full of root, shift them.

Acacias, and other hard-wooded plants, must have plenty of room for their roots. Many plants once taken into the dwelling-house are destroyed, because the roots have impoverished the soil they are in, and want fresh compost to grow in, therefore it would be well to examine them all.

Camellias are now in flower, and we can only direct the grower for their treatment to the way they are managed in the greenhouse and *Camellia*-house; but after they have done flowering, there must be just as much care taken of them as before they flower. Put out all the plants when there is a warm shower, that they may have the benefit of it for an hour or two. Keep the plants clean by means of the syringe occasionally, and by sponging any of the leaves that are dirty, and that the syringe will not clean. A visit to the nurseries this month will suggest additions to the stock; and see that they are shifted into proper pots to last the summer through before you get them home. Choose such as have not yet opened their flowers.

Fuchsias are making their growth and advancing towards flowering.

See that they have good pot-room and do not lack moisture.

Heaths must be carefully watered; they must never be dry, but they must not either have it too often. When you do water, make all the soil in the pot wet.

Sow *Mignonette*, *Convolvulus*, *Nasturtiums*, *Nemophila*, *Virginia Stock*, *Lupins*, and other annuals in pots or boxes; *Tropeolum Canariensis* and *Convolvulus* major for climbing.

Get now a supply of those subjects that will give bloom or fragrance, or both, until all the annuals now sown shall come in. *Mignonette* and *Stocks* may be had now at the nurseries, just coming into flower, and no two plants are more gratifying. The Golden and blood-coloured *Double Wallflowers* are in perfection, and will last so some time, and all these will be very conspicuous for some time to come, and give life to the windows which they occupy. There are several *Heaths* now in bloom, and towards the end of the month will bear exposure, but they are beautiful objects, and should be taken in at night and in bad weather, until spring fairly sets in. *Hydrangeas* are forced for the London market, and with their noble heads of bloom, which last a long time, make a great display.

Stir the earth on the surface of all the pots, throw the loose stuff out, and top dress with fresh compost. The bulbs in pots ought now to be in or about flowering. See that they have abundance of water.

M A Y.

PLEASURE GROUND AND SHRUBBERY.

The Mowing of the Lawn is now a necessary operation, and we need hardly say, that it should be done with the scythe before the dew is off the grass, or by a mowing-machine after the grass is perfectly dry. To mow well, the grass should be cleaned with a bush-harrow if large enough, or a birch-broom if small; that worm casts may be scattered, and stones or other annoyances got rid of, and after cleaning, it should be well rolled; it will be then ready for the scythe the next morning early, or the machine in the middle of the day. After mowing with the scythe, the grass should be carefully swept together and removed. When mowed with the machine the grass is taken up as it is cut off. If the ground be perfectly free from hollows, the machine mowing saves a good deal of time. If there be a good deal of Lawn, a horse-machine, such as is used in Buckingham Palace gardens, is desirable; but a good deal may be got over with a hand-machine, and a boy to draw it while the gardener guides it. The operation is not much more troublesome than wheeling a barrow. The edges of the grass next the beds and paths must be clipped with shears; or, if the edges have grown upon the beds or gravel, which is most likely the case, let them be all cut

smooth and back to their original marks with the edging-iron. In comparing the merits of the scythe and the machine, it should be mentioned that the former can only be used early in the morning, whereas the latter can be used whenever the grass is dry, which, in summer time, is pretty nearly all the hours the sun is up. Another object is the saving of labour, which is great. The best and most approved machines are of Shanks's Patent, which is a late improvement; the early machines being frequently out of order; and the most effective scythes are the self-adjusting, which can in one minute be adjusted to anybody's hand, which is a great advantage. Mow once a fortnight or oftener.

Gravel Walks, if not already turned, should now be loosened all over with a pick, three or four inches deep, or more if there be gravel, and with a spade fairly turned over, and finished off with a rake; after which, they should be rolled with a heavy roller, and the rolling repeated after every good shower of rain.

In the clumps and borders of the shrubbery you have most likely some herbaceous plants as well as trees and shrubs. The borders may be cleaned with the hoe, and the weeds removed; and if you have vacant spaces that

require furnishing now is the time to fill them. Choose the beginning of the month to sow seeds, and the end for planting the ordinary bedding plants, or Dahlias.

As the bloom of trees and shrubs decay look to your pruning before the new growth is made; it is the proper time to bring them to reasonable forms and moderate dimensions. All the straggling branches that were merely spared till blooming time, for the sake of their flowers at the last pruning, must now be cut back; Lilacs, Guelder Roses, Almonds, Thorns, double-flowering Peaches and Cherries, Honeysuckles, Laburnums, and other early-blooming trees and shrubs, may be cut back to a form that shall secure a handsome specimen when clothed with the new wood; but the beauty of the bloom must have gone by before you reduce the plant. The earliest of the American Azaleas may before the end of the month be past their beauty and ready for the knife.

If you have to furnish the borders in front of the shrubs, remember to be uniform in the disposition of the plants. If they are all to be tall you have little to care about; merely putting a Dahlia, or a Hollyhock, Monks-hood, Phlox, or other free-growing subject wherever there is room; but if you intend to convert it into a regular flower border, the tall things must go as far back as they can, and those less tall forward, while the dwarf subjects, such as Scarlet Geraniums, and Verbenas, Lobelias, Veronicas, and such like, must come next the edge; but you may choose to sow annuals, when the same directions as are given in the flower garden must guide you.

Trees and Shrubs in flower.—Berberis, Honeysuckle, Double-flowering Cherry, Guelder Rose, Elders, Hawthorns, Jasmines, Laburnums, Ledums, Almonds, Bays, Judas-tree, Mespelas, Syringas, Pyrus Japonica, Sweetbrier, China Roses.

THE FLOWER GARDEN.

Alpines must be kept clear from weeds, which if neglected would overrun them in a week.

Anemones will, before the month is out, be showing their buds, if not regularly blooming. They will require weeding and watering on dry days. The autumn planted ones are in full flower; and if they are valued for their bloom, it may be desirable to shade them from the heat of the sun. The later ones should have the soil stirred

between them, and brought close to their stems.

Annuals, hardy.—Thin all the patches of seedlings, so that the remainder have room to grow. Larkspurs, which are of different colours, Erysimum, &c. should be three inches apart, to bloom well; Lupins like more room; three in a patch are quite enough. Convolvulus minor, Nemophila, Coreopsis, and other free-growing things ought to have but three or

four in a patch; Sweet Peas from six to eight; and even the smallest annuals ought not to be within two inches of each other. The thinning of these summer visitors is the most important operation in their whole lives; for it decides whether they shall assume their proper vigour, habit, and bloom, or be cramped into a weakly spindly growth, a temporary bloom, and a premature decay.

Annuals raised in heat, such as Stocks, Asters, French and African Marigolds, Zinnias, may now be planted out; and upon the manner in which this is done depends the effect they produce. Three in a place, six inches apart, at the points, as it were, of a triangle—one in front and two behind, is the most desirable plan; and if the border be not ready, that is to say, if the places are pre-occupied by early Tulips, Hyacinths, or other subjects, pot off these annuals three in a pot, in a six-inch pot, close to the edge. Stand them out of doors, taking especial care that they have water when they are getting dry; they will progress quite as well, and be ready to turn out with the ball of earth undisturbed, when the room is made for them; and those who grow bulbs cannot fill up their places better when they decline.

Azaleas.—Some of the early ones on the borders are in bloom; if these decline during the month, prune them into shape, as directed in the operations for the Shrub-berry.

Balsams may be planted out in beds and borders.

Carnations.—The plants now begin to grow fast, whether in the

ground or in pots of large size to bloom in; but if any remain in their small pots, let them be released immediately, by planting into the beds and borders, or by potting in ten or twelve-inch pots, as already directed. Whenever they shoot up, their stems must be supported by proper sticks. These should be thrust in the soil as near between the plants as is safe, for the roots must not be damaged; therefore the sooner it is done the better, because the roots will spread rapidly when they once begin their summer growth. The bottoms of the stakes ought to be dipped in hot pitch, or be charred in the fire, to prevent rotting; and there should be shades, like those of a lamp; but the hole in the centre should be only large enough to fit the stake, and slip up and down according to the height of the plant. The object is to keep the wet and sun off the flower. Make small holes in the stake at different heights, and let a peg be placed in the hole, that will keep the shade at a proper height. Some shades are made without a hole at the top, but with a socket on the side, so that the flowers have to be borne away from the stake or they would not have the benefit. Ornamental shades are in use where the grower has a regular Carnation-house; but as the use is to keep off the wet and the sun, the fashion of it may be very plain or otherwise according to the taste of the owner.

Chrysanthemums, more than any other flower, afford the means of continual increase; for they may be parted, or the tops taken off and struck, the whole year. Those in pots may be stopped at

every point; that is, if the object be to get fine bushy plants for show; for they will throw out laterals almost immediately. Struck cuttings under a hand-glass must be potted off into small pots, or planted out. Slips taken off with a bit of root may be potted or planted out at once. The tops of those to be stopped may be taken off long enough to strike as cuttings, if stock be wanted; always bear in mind, that if a *Chrysanthemum* once suffers for want of water, the lower leaves turn colour and in time wither and decay, leaving all the under portions of the limbs bare of foliage. Also, it must be remembered that when the roots begin to mat round the sides of the pots they are in, they must be shifted to others a size larger; and this shifting must continue until the plants are full grown and fully bloomed. The plants that are grown for their cut flowers must not be stopped, but the plant must be supported against the wind and their own weight; for before they flower they will perhaps be four or six feet high. In beds against the wall they throw very fine bloom.

Cyclamens only want weeding and watering in dry weather. If the blooms are shaded they last longer.

Dahlias.—Having prepared the ground and driven stakes in, wherever you intended to plant, there will be no trouble in planting them with a common garden trowel. Merely make the hole large enough, and loosen the earth about it; return some of the earth, that the bottom may be placed by common pressure on the soft mould the exact depth

required. The plant should be sunk a little, that a basin may be formed to hold water, until fairly established; when earth may be drawn to fill up, and this will earth up the plant a little higher than it was in its pot. When put in and the ground pressed close to the ball, a good watering is necessary; and the hollow in which the plant stands will facilitate this, because once filled is enough for the time. If, however, the ground is not made up and the stakes are not driven, let the stakes be put down first, and drive them far enough in to be firm; then dig a hole close to it, a foot deep and eighteen inches wide; instead of returning the soil as it is, put a good spadefull of rotten dung into the hole, and return just as much of the soil as will fill it up well. Scatter the surplus mould anywhere; or, if you please, wheel it away. Fork the dung and the soil returned to the hole up together till it is well mixed; then plant the *Dahlia* without disturbing the ball of earth. The plant should be immediately released of any short stick, to which it may have been tied, and support it loosely to the stake. The end of the month is safer for this than the beginning, except in cases where you merely cut up the old bulb as soon as the eyes show; for these pieces, when put out, should be covered a good four inches; so that the beginning of the month is as good as the end, because they will not shoot above the ground till they are safe.

Fuchsias that have been matted up, or mulched, will be shooting above-ground; or if they have not been killed to the ground by the

frost, they will be shooting from the old wood. Rub off all the buds that are not wanted, to prevent being crowded.

Herbaceous plants and *Perennials* generally may be sown the end of this month; we speak of hardy ones only, of course; and all those that grow tall and that require support must be looked to in time, that the work may not all press at once.

Hollyhocks, if not planted before, should be now put into their final places. None but potted plants will bear removing now, without suffering a little; but potted plants will do as well as they would if planted in April; yet, for plants taken from the ground, it is later than it should have been. Plant them as close to the stakes as possible, and in the same way as you would Dahlias. You may also sow Hollyhock seed this month, towards the end week.

Hyacinths, now in full bloom, should be protected against sun and wind as well as you can do it.

Pansies now in bloom; look well to the seedling bed, that all the useful ones may be marked and the inferior varieties thrown away. Do not let them open their flowers a single day; you spoil your bed, because, with the very best seed that can be got, or saved, there is a strong disposition to go back. In dry weather the plants must be watered, and if you wish to show good blooms shade them by any means from the bright sunshine. In pots they are fully bloomed before the month is out, and half-a-dozen of the best ought to be set aside for saving seed. Place them away from everything likely to

impregnate them unfavourably. The wild plant will often injure them at a considerable distance, so that the safest mode is to appropriate a frame and glass to them, and when the glass is off, cover with hexagonal net or open light bunting. You may also sow seed, the plants from which will flower in August if not in July.

Phloxes.—Sow the seed for these, and as the established plants advance support the weaker ones against the wind. Most Phloxes will support themselves.

Picotees must be managed like Carnations; they are neither more nor less hardy, except here and there a variety may be rather more delicate than the rest.

Pinks.—This month they send up their flower-stems, often several to a plant. Those who grow them for their beauty in the garden will allow as many as three or four stems to remain; but the enthusiastic exhibitor will often reduce the stems to one, and the buds on that stem to two or three. If, however, a plant is well established you may leave two of the best stems and disbud them to three each; nor will there be any danger of the flowers coming weak or small. The stems must be supported with sticks, and they must be strong enough to bear a shade on them, and about fifteen to eighteen inches high. If the weather be long dry you must refresh them with water.

Polyanthuses and *Primroses* have done flowering perhaps this month, and if you do not want the seed cut down the stems, loosen the earth about them, and give them plenty of water in dry weather, to keep them growing. Some part

them for propagation as soon as the flower has decayed. This must be a disadvantage; because, in parting the roots into as many pieces as there are hearts so early as this, you have all the embryo hearts shooting out afterwards, and the young plants almost bear parting again; but if we wait till the growth is made, we fairly form single hearts, and they alone throw up good trusses of flowers. If you want them for seed merely, attend to the wants of the plant until it is ripe, when the pod will crack; and if you are not watchful you will lose it all.

Ranunculuses are, if autumn sown, in full bloom, and want shading and watering; but not over the flowers. If sown in February they are growing fast and require a great supply of water; but the ground must be stirred about their roots, not deep enough to hurt them, but to let in air.

Roses.—Go over the stocks, which are fast growing, and cut away all but the branches you mean to bud on; this will make the useful shoots infinitely stronger. Look over all the *Roses* to see the stocks are not growing, or to cut the growth away altogether if they be shooting out, that it may not injure the head. Syringe all of them on the least appearance of green-fly; a painter's brush too, or dusting brush, not too large, will assist in displacing them—by merely laying the tip of the branch against your hand and brushing upwards. Washing with tobacco water is efficacious, and fumigation, if by any contrivance you can confine the smoke. Syringing is, however, the best. If the blooms and buds have been

spoiled by the maggot, cut a few of the trees back to buds not affected. Summer *Roses* are often so pruned to make them later; but now it is the fashion to grow perpetual varieties; they will continue to grow and bloom the whole summer; and when all the first buds have been eaten through, the second growth has been much stronger and better, and the bloom more general.

Shrubs, though belonging to the article Shrubbery, are often grown as ornaments in borders; but you should be more careful of them when rapidly grown, without being crowded by other shrubs. We must refer generally to the Shrubbery and Lawn for the management of grass, gravel, and plantations.

Tulips.—The top cloth must now be put on the best bed, which should be a rolling-roof as it were, to be let down or drawn up as required. As hailstorms are frequently sudden visitations in the early part of May, the cloth covering should be let down quickly on the approach of a storm; but as it is of the greatest importance that the *Tulips* should have all the air and light possible at all times, they ought not to be covered even from the hot sun, till the flowers begin to show their colours; but after that, so much of the cloth as will keep off the direct rays should always be down. Nor is it safe to leave a good bed without some one in attendance. At one part of the day one-half the roof may be used and the other half be rolled up, and as the direction of the sun changes so must the position of the cloth; for it is necessary to keep as

much uncovered as possible. The side cloths are in some Tulip-houses fixtures; but the proper construction is two rows of canvas shutters, with hinges on the upper rail. In mild weather these should be propped out square, so that the air is as free as if there were none; in windy weather the side next the wind should be closed and the others may be open; in fact, the cloth and these shutters form a close canvas house. All the attendant has to look to is the shading from the sun with as little of the canvas as possible. And having provided this to be used as required, the rest of the house may be open except in windy weather, when that must be kept out by partially or wholly closing the rest. The outer beds of Tulips are in general only covered by hoops and mats; the mats being removed when any one wants to see them. The early Tulips have bloomed.

Violets are great favourites, and are now blooming in the open air.

There are double ones of somewhat more delicate constitution. In the open ground they will hardly stand very hard winters; but in pots, with very slight protection, even with good loose litter, we can save them; but if potted they want more attention to the watering, for they absorb a good deal of moisture. The advantage of pots is in our being able to remove them to a warm corner, or send them early in winter to pits and frames.

Plants in bloom.—Many biennials, perennials, and annuals are now in flower or about flowering; Wallflowers, especially the double ones, make a great display. Hyacinths are in perfection, Anemones, Narcissus, Jonquils, Ranunculuses, Columbines, Candytuft, Gentianella, Canterburybells, Sweet-peas, Monkshood, Scarlet Lychnis, Iris, and many bulbous-rooted plants, make a fine show, and towards the end of the month we have Columbines and Foxgloves.

THE VEGETABLE GARDEN.

Artichokes.—The plants are now growing fast, and they only require that the ground should be now and then hoed over, to keep it clear of weeds and open the surface.

Artichokes, Jerusalem.—To be earthed and kept clean.

Asparagus.—This is now rising for use, when it is only slightly earthed and wanted for home consumption; for there is no occasion for a long tough white stick. Let the buds grow four or five inches,

or more, so that the top is compact, and cut very little below the surface. It is the perfection of growth to have four or five inches that may be eaten; but for market the sticks must have rough usage, and therefore the beds are earthed six to eight inches above the crown, and the buds are cut almost as soon as they push through the ground: it is considered handsome when not an inch of it can be eaten, and all the rest of the stick

is delicately white. We have always said, and there has been nothing to change our opinion, that in private families, where they have once eaten it well-grown, they would never fancy the market asparagus. Where the beds, therefore, are earthed up so that a long stem must be cut, the greatest care must be taken to avoid damaging the buds that are beneath the surface: long-handled and short-bladed knives—saws, they ought to be called—are made on purpose. Only the thick and handsome buds should be sent in for the family; the crooked and thin ones must be kept separate, if sent in at all.

Beans, Broad.—All the forward ones should be in bloom, and the tops should be taken off. This is called stopping; the effect is to stop the growth upwards, and throw the strength of the plant into the buds and blooms, removing instead of allowing any additional flowers. Other stages of growth only require hoeing between the rows, and drawing the earth to their roots. This month more may be sown, if a continuance of supply is desirable; these may be sown a yard apart. If there be much call for lettuces, and the ground is scarce, a row of lettuces may be planted between them, and come off before the beans advance enough to want the room.

Beans, Kidney.—Sow French Beans twice, early and late, in the month; the first for a succession to those sowed last month, and the latter as a main crop: these should be sown in drills, three inches apart in the row, and the drills two feet asunder. Hoe between the rows of such as are up,

and draw earth to the stems. Plant out the same distances those sown in patches.

Beans, Scarlet.—Sow these six inches apart, in rows from four to six feet distant, according as they are to be treated. Many will not go to the expense of sticking them, but, as soon as they advance their spiral shoots, take the tops off, and continue to take the ends of all other shoots off, leaving only five or six joints to the main shoot and less for the side ones. They are very prolific this way; but if they are to be stuck, they must be six feet apart, or there will be neither sun enough nor air enough to bring the lower blooms into fruit.

Beet-root.—Sow now, unless you have enough of last month's sowing. Let them be sown in drills, nine inches or a foot apart; and, when thinned out, they must be the same distance in the rows. The ground for this must be well bruised and stirred two spits deep. If any were sown last month, and are well up, hoe them out to the proper distances, and clear off every weed.

Brocoli.—Sow all the sorts intended to be grown. Some make two sowings, but there is no advantage in this; by taking the forwardst plants from a seed-bed, from time to time, as they advance, you have all the benefit of several sowings. Weed those sown last month, and, if too thick, thin them a little. Plant out any that are large enough.

Brussels Sprouts.—If not already sown, do it at the beginning of the month; and if they have been sown, and begun to grow, look to the weeding and thinning.

Cabbage.—Where these have been planted out thickly, to be thinned for use as greens, the plants must be reduced as rapidly as possible to their proper cabbaging distance. Young plants may be pricked out six inches apart; or, if the ground be at liberty, planted out, taking the largest plants only; because by this means several seasons of cabbage can be taken from the same seed-bed. Where the extra ones are withdrawn to give room, hoe the ground well, and draw earth to the stems of those that are to remain.

Cardoons.—Thin out the plants from the seed-bed, that they may have room to grow. The old plants are to be treated as before recommended; the stalks blanched as celery, to be eaten like kale.

Carrots.—Sow of both kinds, the Early Horn and the long ones; be guided as to quantity by the supply wanted and what you have already sown. The Horn carrot comes on quickly; the other kinds are generally grown for storing. Thin out those already growing, where they are too crowded to swell; but drawing the largest for table will do a good deal for the early ones; therefore do not thin them too much.

Cauliflowers.—Transplant eighteen inches apart, in rows two feet distant. Let the ground be well dunged, and dug or trenched, and the more open the situation the better. Those under hand-glasses must be fully exposed in fine weather, and especially in warm rains. In some warm situations, the glasses may be dispensed with altogether this month. As soon as the flower-heads begin to grow

and attain a moderate size, break down some one or two of the large leaves upon them, to keep off the sun, which would discolour them, and from too much rain, which would rot some portions of them. Sow more seed towards the end of the month.

Cucumbers.—The growth of these on the ridges may be regulated in the same way as recommended for frames in the forcing-ground.

Herbs.—If these are not already sown and up, no time must be lost. Angelica, Balm, Basil, Borage, Carraway, Chamomile, Dill, Fennel, Hyssop, Lavender, Liquorice, Marjoram, Marigold, Mint, Orach, Parsley, Pennyroyal, Purslane, Rampion, Rocambole, Rosemary, Salsify, Sage, Scorzoneria, Sorrel, Tansy, Thyme, Tarragon,—in fact, all herbs, culinary and aromatic, may be sown as early as possible in the month; but as most of these are perennials, and such as are required are in beds, they may not be required to be renewed: but it should be borne in mind that it is well to renew them now and then with seedling plants, instead of constantly propagating from the old ones.

Horseradish beds must be kept clear of weeds.

Kale, or Borecole, in the seed-beds must be kept clear of weeds, and may, when large enough, be pricked out, six inches apart, in an open situation, to grow into strength by the time the ground is ready to receive them at their final planting out. Seed may be yet sown.

Leeks.—Sow for late transplanting. Weed those already growing, and make a small plantation with

the forwardest plants, or prick them out to strengthen.

Lettuces.—You have these in all states now. In the seed-bed, the last up may require thinning; others, rather forwarder, may be planted out. Some of the most forward of those planted out will be assisted by tying up to blanch. Seed of all the kinds may be sown once or twice during the month, for the consumption of lettuces in salad is continuous.

Nasturtiums may still be sown; and in general they answer the purpose of hiding a bad fence, or concealing any ugly objects. Those already growing must be supported as they advance, or they will trail along the ground and get tangled.

Onions require hoeing out, to thin them; and those which have been hoed may want further clearing from weeds and from some that have been omitted and left where they ought not to be; for none should be nearer than six inches. A portion may, however, be left thick, to be drawn out young; and, in drawing these, regard must be had for those that remain to be left pretty regularly dispersed about the bed, with room to bulb well. Hoeing should be done with a small onion-hoe, not more than two inches wide, and a short handle, which commands the blade better than a long one. Every weed must be chopped out, and a dry day always chosen for the operation.

Parsley requires to be thinned a little, whether used as an edging or grown in a bed; but the final thinning will be best done when the plants are large enough to show the qualities of the leaf: all

that are not well curled should be drawn out; this operation is technically called "rogueing."

Parsnips should be hoed out, so as to leave the plants from seven to nine inches apart, which is the least room that can be given them to do well. No weeds must be left, and if once going over them does not effectually clean them, the operation of hoeing must be repeated as often as weeds appear.

Peas.—It is a good plan to top the peas as soon as they begin to bloom; first, it checks the growth upwards; secondly, it hastens the filling of the pods. Those which are well up should be raked, to clear the row of lumps, and the earth stirred about them should be drawn to their roots or stems. They should also be stuck with appropriate sticks, according to the height they will grow. Some recommend this to be done when the peas are six inches high; but as sticks are of great service in keeping off birds, the sooner it is done when they are above ground the better. Sow more peas, according to the supply required; sow, according to the rule you have laid down, once a fortnight or three weeks; or let the second sowing of this month be when the first sowing has come up. There may very well be three sowings in the month, where a continuance of supply is necessary.

Potatoes may be planted, and those which are up should be well earthed. Loosen all the soil between the rows, and draw the earth up in a bank on each side.

Radishes may be continued: the turnip kinds are great favourites at all times, and the crops sown early this month will grow ra-

pidly, and eat milder and better than many previously sown.

Rhubarb only wants to be kept clear of weeds and the earth stirred between the plants. In pulling the leaves, draw them sideways, that they may come away clean. Seedling rhubarb, sown broadcast or in rows, should be thinned, that it may have room to grow: it may be sown this month, if required.

Sage.—Weed seedling plants; and, when large enough, plant some out, a foot apart, in rows two feet from each other. If you cannot devote the space, prick them out within six inches from plant to plant, and defer the final planting till they are stronger.

Salads of all kinds must be weeded and kept clean; and small salads, such as mustard, cress, rape, and radish, must be sown thickly, to draw each other up to long stalks.

*Savoy*s.—Transplant any that are large enough direct from the seed-bed; or, if you have not sufficient ground ready, prick them out six inches apart, to grow until you can spare a quarter for them; because if left on the seed-bed they will draw up long on the leg, and not make such good plants, besides giving much more trouble in planting out.

Spinach.—Sow for succession crops; thin out that which is advancing, and go over it a second time, if necessary, to give room and destroy weeds.

Thyme.—Treat as we have recommended for Sage.

Tomatoes, *Capricums*, *Chilies*, being tender, can hardly be planted out this month, unless the weather has set in very warm. The two

latter, indeed, will not always do well in the open air; the best place for them is the foot of a south wall or fence.

Turnips.—Sow twice in this month; and if there should be a good shower or two to saturate the ground, sow rather a heavy crop under such favourable circumstances. If, however, the weather be dry, it will be worth while to water the ground liberally the day before sowing. Hoe out the plants that are well up, and leave them only six inches apart. If any were hoed last month, go over them again, to remove any straggling plants and all the weeds. If the first sowing be without previous rain, let the quantity be small; but if no rain come before the twentieth of the month, water a larger piece of ground effectually, to help on the second or principal crop.

Vegetable Marrow.—At the end of the month you may plant out a few which have been raised in heat and grown some time in their single pots: put them in good soil, mulch them with dung all round for a short time, and cover with a hand-glass the first week or two. But if the weather be unpropitious, it may be delayed till next month.

Watercress can be grown in any garden, in the vicinity of a pump or other supply of water. A hole may be dug a foot deep, and as large as required; this should be puddled with well-kneaded clay till it will hold water. Three or four inches of good soil will be sufficient to plant them in, and this must be put upon the clay bottom. Plant them six inches apart all over the bed, and let

there be always an inch or two of water over them. They will grow rapidly, but they must never be dry, or they will taste very pungent.

Cleanliness in the walks and alleys is of the highest importance. The weeds and rubbish raked from the beds after hoeing must be

cleared away; no weeds must be allowed in the paths; and when the waste of the garden can be burned, the ashes will do the ground more good than the decayed vegetation; although the latter is by no means to be despised—nothing should be thrown away.

THE ORCHARD AND FRUIT GARDEN.

IN this department there is little to do, but that little is important. Beginning with Wall-fruit Trees in general:—

Apricots, Cherries, Peaches, Plums, and Nectarines.—As the young wood in these has made some advance, examine all the trees carefully, and remove any shoots that are in wrong places that you may have overlooked when rubbing off the useless buds; all those, for instance, that grow out from the wall, and such as are in places already well filled. The proper time to have done this was when they could be rubbed off, but if any that ought not to have been left, are left, get rid of them. All the young branches that are coming where they are wanted should be carefully laid in, and rather loosely tacked where they ought to grow; give plenty of room, for growing shoots must not be confined. It is at this season that the operator can do most with his trees. His business is to cover his walls, and to do this he encourages all the growth he can find near the naked spaces, and checks it where it is not required; this increases the vigour of the branches allowed to grow, but it sometimes occurs that a

strong branch is growing where three or four weak ones would do better; in this case, he has only to cut back the strong one to four or five eyes, which will immediately produce as many branches of more moderate pretensions, and answer the desired purpose, that of furnishing a naked portion of the wall; always bearing in mind that this year's young wood is to be the bearing wood of the next, so regulate the quantity that the tree will be capable of well ripening it, and that you can lay it all in without crowding too much; when there is a choice of evils, cut away old wood in preference to young. Apples, Pears and other espalier trees must also be looked over for the same purpose, and the work done in the same way; for the espalier is but an open wall; but as Apples and Pears bear upon the old wood for years, and there is generally a great quantity of young wood, you have only to retain the best whenever you want them to help fill the trellis, and to cut all the rest clean away to a close knob.

Fig Trees.—Top the young shoots as soon as they are two or three inches long.

Gooseberry and Currant bushes.—

Many pay but little attention to these until gathering time; if there be a crop, well and good, if not, a little grumbling at the failure dismisses the thing from the mind, and there is an end of it till pruning time. Now they should be examined and deprived of every inward shoot, no matter whether there be fruit on it or not, so that you leave enough to make a full fair crop. If there be any caterpillars they should be picked off; if they are very threatening, get the syringe and give them a good washing with the ordinary force of a garden engine, with a good rose on it; and be it remembered that the garden engine is the greatest enemy to insect life if properly applied; the only care required in its use is to put on an appropriate rose. If the holes are too large for close quarters, and would force off the buds and blossoms, and even set fruit, you are to know that a very fine rose, that is appropriate for close operations, would be useless at the distance of a standard tree. There must be sufficient force to drive off caterpillars, but the finest rose is of power sufficient for Gooseberries and Currants where you can apply it closely. Plain water is in general sufficient, but tobacco water has been necessarily used after long neglect, and when the plant-louse has apparently established a colony on every branch. If the smoke of tobacco can be confined, it is death to those pests, without a chance of escape.

Slugs and snails are woeful pests, and if not fully exterminated before the fruit gets forward, they will be masters and pick the best. The strongest invitation to this

class of marauders is a half-roasted cabbage-leaf, for it will bring them from afar; but next to this is a raw one; lay therefore a quantity of them along the fruit borders, and every morning take them off and destroy them, for they will assuredly congregate there so long as there be any left near.

Newly planted trees, which cannot have established themselves as yet, must be regularly watered in dry weather; we allude to those planted any time since November.

Strawberries.—For fine fruit take off all the runners; for an increase of the sort, peg them down where they will have the most room. Water those in bloom well, if the weather be dry.

Vines.—Remove every useless shoot; let none but fruit-bearing branches and those wanted for next season grow; and stop those which have fruit one joint beyond the last bunch, for there will frequently be three bunches on a branch. It is rare that more than two are allowed to swell, and one is enough if the bearing branches are pretty well supplied all over the vine; by-and-by you will see which of the bunches is the most handsome, and remove the others, but the shoot must be taken back to one joint from the bunch or bunches left. Of the branches that do not bear this year, select such as will be useful to fill the wall, or that are more than usually strong; in the first case you may put up with a weak branch rather than none, in the latter it will enable you to remove old wood to make way for it, by these means you renew so much of the vine; much depends, however, upon the system you start with. If the wall

or house be covered, and you are growing on the spur system, you want no long rods; but if upon the rod system, you must leave a shoot for every place to be filled. For instance, say the vine is laid horizontally right and left, or it may be on one side only, there is, we will suppose, a branch shoots out every foot; rub off every other bud, and let only one go up every two feet; this well ripened will bear fruit next year, and these are the only ones left on the vine. The next year many shoots come between the base of one rod and the base of the next; from these shoots you select the strongest one to form a rod this year to bear next year, and rub all the others off; do not let one have even a start. The rod, as it grows, is to be tacked up between the bearing ones, and when the bearing ones

have ripened, or got rid of their fruit, they must be cut down close to the horizontal main branch. In the spur system you fill the space as well as you can with strong wood, and cut back the growth of the year to one or two eyes, but even on this principle you must now rub off everything but the shoots that bear. You must not have these too close together, for nothing delays the grape worse than having too heavy a crop, and this delay prevents the ripening.

Newly grafted Trees and newly budded ones, should be examined, and any growth of the stock removed. Clay should be taken from the grafts: this belongs rather to the nursery than here, except that we frequently put an odd graft or bud to change the variety.

THE NURSERY.

EXAMINE the newly grafted trees; and if they have united and begun to grow, remove the clay or grafting-wax, and cut away all that has grown of the stock.

The stocks that were budded last year must also be looked to, for many of the stocks will be found to have started, and the bud would soon be overpowered by the vigorous advance of the natural wood.

The *Layering* of Evergreens and other shrubs may be proceeded with at the end of the month, but confine the operation to such as root freely from young wood, and do not so easily root from old wood. The rule, however, for this

work is to begin as soon as the young wood is long enough.

We need hardly repeat that weeds must be destroyed, and especially among the smaller subjects, for they would otherwise be smothered.

American Plants.—As these come into flower they require a good supply of water, especially the Rhododendron and Azalea, and as soon as their flower decays they should be pruned well before they make any new growth; but if the bloom is not considered an object while they are in the Nursery, prune at once and nip out the buds; it will greatly increase the strength of the new growth. By

looking well to the new branches the instant they start, and rubbing off the buds that show themselves where no wood is wanted, the plants will be wonderfully improved.

Seedlings in beds must be watered freely, if the weather prove dry long together; and seedlings of a more delicate nature in pans must be shaded from the heat of the sun and occasionally watered.

As certain flowering shrubs and trees have bloomed, or are bloom-

ing, use the knife to them before they make the new growth; cut in any straggling branches, for although size may be valued, symmetry in a tree or shrub must not be disregarded.

Hoe the ground between the young evergreens and deciduous plants, not less to open the surface than to destroy weeds, which however should be cleared off as well as killed, lest a shower should reinstate them.

PITS AND FRAMES.

Auriculas have in some cases done their blooming; and as the flowers decline, the plants should be placed on a dry bottom in a shady part of the ground; and if with a temporary covering against any heavy showers or a wet season, so much the better. Those which are still flowering may keep their places in the frames or be removed to where their flowers are wanted; but they must be brought away when the bloom declines. Sow the seed.

Carnations and *Picotees*.—As these have left their frames for their blooming pots, and probably done with, so far as frames are concerned, the principal object for some time is to see they do not want water without having it; take care that they are so disposed that worms cannot enter their pots, nor vermin crawl up them.

Pinks and *Pansies* in blooming pots; the former must be turned into the open air, and bedded out properly; but if to flower in their pots, set them on boards standing on inverted flower-pots, and if

these could stand in pans of water, so much the more secure will they be against the earwig. *Pansies* may remain in the frame, for the convenience of shading, for unless the blooms are protected from sun, wind, and wet, they will soon go off; if any should be left in the small store-pots get them out into the ground or into larger pots without delay, but it must be understood that both *Pinks* and *Pansies* in their large pots will do well without any shelter, if properly watered, and not for exhibition. Covering against rain is necessary for *Pinks* in flower, to exhibit, but not until they burst.

Polyanthuses and *Primroses* in pots are very apt to get the red spider if allowed to get dry, and they will be all the better turned out of their pots into a shady border, free from slugs and snails; and the best way to prepare this, which should be loam from rotted turf, or a good border of ordinary mould, and cow-dung equal to a fourth of its bulk. (This is easily managed by putting & dressing of

three inches and forking it in with nine inches of the soil.) In this border they may be turned out with their balls whole; when they must be watered, and water must be given occasionally in dry weather. Here they will grow fast, and in a couple of months be ready to part into single hearts. The finest trusses of bloom always come with single-hearted plants. Sow seed of both, if wanted, in pans, to be handy for shelter in the pits until they are strong enough to plant out.

With regard to these structures they embrace a wide field, but in this department we contemplate only cold pits and frames, that is, those without artificial heat. The half-hardy plants of all kinds that have been sheltered all the winter may now be taken where they are most required for ornamental or decorative purposes. Azaleas, Rhododendrons, Acacias, Daphnes, Roses in pots, and blooming plants generally, will towards the end of the month stand out of doors as well as in, but if they remain in the pits and frames they must be wholly uncovered during the day, and the covers might be laid aside at the end of the month for all the good they are to the plants; they are often kept on because they take less room on than off, much to the detriment of the plant sometimes, but generally the plant should stand out. The pits and frames become useful for newly-potted plants, which are better deprived of air for a day or two. Many persons turn the frames into hotbeds for melons when the plants are got rid of; but this belongs to another department. If among the pits there are any that

have to do the part of a stove or a greenhouse, the management must be the same as that of the house they are to represent.

All kinds of seeds that are choice, whether hardy or tender, should be sown in wide-mouthed pots, or pans, or boxes, and put into frames, because the quantity of moisture can be regulated, instead of their being subject to heavy rains, which will wash up and waste them. In sowing in pots, &c. they are more evenly sown and covered, and can be seen better.

Advantage should always be taken of fine weather to clean, repair, and paint these structures, for in nothing does the old proverb, "a stitch in time saves nine," apply with more force than in frames, lights, greenhouses, and horticultural buildings. Once neglected a year or two, and then repair becomes very costly, whereas a coat of paint at the right time preserves the wood-work and putty wonderfully. Glass of the right size should be always kept in store, so that on an accident occurring, a broken pane can be replaced at once. Nothing is worse to plants than drops of water; a perpetual drip would kill a cabbage.

Keep the frame-yard free from weeds and accumulations of dirt or decaying vegetation, except leaves that are swept up and deposited for the purpose of rotting into mould, but there must be no fleshy leaves thrown among them; the place ought to be kept sacred to the leaves of trees only. Let all other waste be thrown to the rubbish heap, or burned, and the ashes saved.

THE FORCING GROUND, ETC.

Apricots, Cherries, Peaches, Nectarines, Plums.—The principal management now is to thin the fruit where it is too thick, and to give air when the hot sun enables you to do so without lowering the temperature too much; to water occasionally as they approach dryness, and syringe over-head till they begin to ripen. As the fruit advances to maturity, they must be kept moist, and the temperature should not be below 55° to 60° at night, nor lower than 70° by day; but, when the sun is powerful, heat does no harm even if it reach 90° or 100°: but above 90° allows you to give air, for although heat is harmless, the air is of great consequence. As the fruit gets forward towards ripening, you must not water so often.

Cucumbers.—As the plants get forward, and have been bearing some fruit, it will be found that certain branches will have left off, and other younger ones come into fruiting. The former should be got rid of, and the latter encouraged: therefore, as a rule, whenever you can cut away a portion of the oldest branches, which perhaps have done their duty well, without destroying useful laterals, always do so; and if a healthy shoot comes out near the base of the old plant, encourage it by making less healthy and vigorous portions give place to it. It is also a good practice to peg down a very healthy shoot, and cover it, that it may strike root for itself; and if this be done in several places, the newly-rooted portions

will proceed as vigorously as the original plant did. When these have rooted well, they may be separated from the old plant, which, in time, may be cut away altogether; for cucumber plants get tired of bearing as well as anything else. The heat should be kept up with fresh linings of hot dung; for although the weather may be warm, bottom heat is essential for quick growth, and the cucumber cannot grow too fast. The succession hotbeds, if any, must be treated in the same way as the first were, and watering must be attended to.

Figs require liberal watering, but the heat may be quite as great as for other fruit; they can hardly have too much water, air, light, or heat; for they will stand 110° by day without injury, and 70° or 80° by night. Nevertheless, they do very well with the treatment required for stone-fruit.

Melons.—These are so similar in their requirements to Cucumbers, that it is almost a repetition. The regulation of the plants is the same, but the Melon must have more heat than is absolutely necessary for the Cucumber, and, as the fruit ripens, less water. The heat in the daytime, when the fruit is ripening, should be 85° to 95°; by night it will fall enough. Not more than three fruit should be growing at one time on a plant.

Pines.—We have often noticed that the Pineapple will bear a good deal of ill-usage, so long as they are kept clean; hence all the

authors that have written upon the subject differ considerably, and yet have mostly been known to succeed. Heat and moisture are the best antidotes to animal life; but when the mealy-bug attacks, there is nothing but actual washing will clear them off; and, notwithstanding all the nostrums recommended, there is nothing more efficacious than soft-soap and warm water. The free use of the syringe is highly beneficial, and bottom heat is essential. As to temperature, one authority tells us that in Bengal the temperature ranges between 53° and 120°, and pines grow well there seven pounds weight; and we feel quite certain that 60° as the minimum by night, and 75° as the minimum by day, is safe at this time of the year. If you have cut fruit, and there is any sucker, or suckers, earth up to the bottoms of them, by putting something round the pot to raise it, and let them grow on till they fruit; or if there be two, one above the other, take off the upper one, and strike it in a pot of six inches diameter, and earth up to the other: you will then see that the one left on the plant will fruit long before the other; and, instead of observing any period for changing the pots, do it directly a plant fills its present pot with roots. Therefore, occasionally examine all the young plants, to see if they require shifting. There is a great diversity of soil recommended, and with about as much reason as the diversity of treatment. We have seen them do well in the most rough and foul composition of half-decayed vegetation and lumps of mould, almost the waste of a garden: we have ob-

served them growing by thousands in plain loam; and at twenty different establishments, public and private, every grower boasted of his own peculiar compost, and all seemed to be thriving well: we have grown them, as we have a hundred other things, in loam from rotted turves, without the addition of anything, except that when the fruit was swelling, we certainly gave one or two waterings of liquid manure, and fancied that it helped the plant at the exact time that help was wanted.

Strawberries only require heat, air, and water, so long as they continue in bearing; and when they have done, they may be cut in, the balls turned out whole into the ground in an open situation, and in all probability the plants will yield a second crop. We need hardly say that all the time the strawberries are forcing, the runners are to be taken off.

VEGETABLES.

Asparagus.—So long as the bed yields a few heads, so long may it be watered and shut up at night; and by day, the frame may be tilted, to give air and colour to the buds; but when it is exhausted, take out all the roots, shake out the soil from them, and throw them to the rubbish-hole. Lay the mould even, and the frame will do for something else, and especially for Chilies, or other annuals, while in their small pots.

Beans, French, that have nearly finished their bearing, may be turned out as soon as they have done their work, to make way for other subjects.

Peas.—Those grown in pots are now in full gathering: the suc-

cession pots may now be turned out into warm borders without disturbing the ball of earth. Put them in a foot apart in rows three feet from each other, and add longer sticks if they require it. They ought to be in bloom, and their turn out will give them fresh vigour when they most want it.

Potatoes only want taking up as they are required. The frames may be uncovered unless there happens to be frost or east wind; but they will not do much more.

Sea Kale, if there be any not yet forced, should be covered up at the beginning of the month, and they will come in before the supply in the open air. Give plenty of dung hot from the stable. Leaves will hardly give heat enough.

Radishes, Salads, Herbs, &c., will need no successors; the out-of-door crops will now keep up the supply.

Vegetables generally, so far as forcing goes, may be considered over; and as they are completed the room they occupy may be used for other subjects.

FLOWERS

now in progress will be got rid of as fast as they perfect their bloom, and must give place to other subjects.

Balsams should be shifted to larger pots as fast as they fill their present ones with roots; and if there be any stem below the seed-leaf, let it be got rid of all but one inch by sinking the plant lower in the new pots. They must be refreshed with water to settle the new soil close to the old ball of earth, and placed in the forcing house or warm pit or

stove close to the glass, where they can have all the benefit of light and air. The proper way to bring these to perfection would be to grow them in a warm pit where their tops might almost touch the glass; but they will do very well in a stove or forcing-house, so that they have plenty of heat, light, air and moisture.

Cockscombs.—These require shifting if grown up from seed; and if the tops of any have been taken off and struck, they should be shifted to pots of rich light earth, similar to that used for Geraniums, and they ought to have abundance of heat, light and moisture, with air when it can be given without reducing the temperature below 70°. Constantly shift them when the roots begin to mat on the side of the pot, or in fact reach it.

Turn over all the annuals raised in heat for the flower garden to the flower gardener, as also the various bedding plants, Dahlias and other tender subjects that have been housed or raised for the out-of-door department.

Roses in the forcing-house, or any of the warm compartments, will continue blooming till those out of doors come into flower. They want but watering, and once out of four or five times let it be with liquid manure.

The flowers and plants of all kinds not yet perfect in their bloom, must be watered and tended until matured, and then got rid of; but such plants as are returned from the conservatory or dwelling house must be housed and well watered until they have completed their growth, when they may be turned out and plunged. This

applies to Rhododendrons, Camellias, Lilacs, Kalmias, and other shrubs and plants; but before setting them to grow their new wood prune them into reasonable shape as before directed; and if

they are pot-bound, or their roots fill their pots, shift them to some a size larger, for these plants, if their wood ripens well, force a good deal better the second year, and may do a third.

STOVE OR HOTHOUSE.

Achimenes.—Of these beautiful plants there are many varieties; but not more than four or half-a-dozen that we patronise. *Ghiesbreehtii*, *Longiflora major*, *Longiflora rosea*, and *Sir Trehorn Thomas*, are four very distinct varieties. To these plants some attention must be given. In syringing the house no water should reach the flowers; and great attention should be paid to the shifting as often as they fill their pots with root.

Allamandas are tall-growing plants, too weak to support themselves, but very beautiful when grown upon a trellis. Of this family, *A. grandiflora* and *A. cathartica* are the best. These will require to be fastened as they grow, and while growing fast must be liberally watered.

Echites are beautiful climbers: *Grandiflora* and *Suberecta* are the best. As these grow fast, constant attention to the proper direction of their shoots must be paid. If they are allowed to grow and hang about, they get tangled with their own shoots, and one hour's neglect will cost several hours of labour, besides the plants being the worse for it, when we have done all we can.

Euphorbia Jacquinæflora, a slight, lanky-growing plant, with the brightest of scarlet flowers, in

graceful spikes, and *Euphorbia splendens*, a thorny thick-growing shrub as confused as a gooseberry-bush, with flowers the shape of a split kidney, are fine in their way, but require very different treatment, not as regards heat, water, air, and moisture, but training. The one should be constantly pruned and thinned out into a good bush-shape; the other wants stopping at the ends of the shoots as soon as they have grown two inches, and even then will defeat our endeavours to make it bushy. Still it must be grown; for there is nothing more beautiful than its spikes of brilliant vermillion.

Franciseas are elegant shrubs, and can be made handsome by early stopping and constant change of pots.

Gesneras and *Gloxinias*, of which there are endless varieties, require shifting as often as the roots fill the pot.

Hoya Imperialis, with a large bloom, and *H. Carnosa*, with its bunches of wax-looking flowers, are both popular. The former wants plenty of room in the pot and good strong supports, and would doubtless look superb grown on the rafters; and the latter is one of the most beautiful objects in the stove when so grown, or even fastened to a wall. See that

they do not suffer for want of water; but they ought never to have any while at all moist.

Passifloras are climbing plants, and want a good deal of room; they run a long way and are best grown upon pillars or on the roof. Look to the young growth, and direct the shoots the way they are wanted to go.

Poinsettia pulcherrima is naturally a tall gawky plant, but much can be done with it. If left to itself it would grow six feet high with a single stem, and bear at the top a scarlet bractæ, or circle of leaves with an insignificant bloom. It may be judged, therefore, that it is the bractæ which the plant is grown for. After striking from the cutting, and potting off, the plant should be cut back to two pairs of leaves, or the top be pinched off. Side shoots will be made, and when these grow two or three inches, or till there are two pairs of leaves and the centres are pinched out, the result will be lateral shoots from the sides of each. By continuing this stopping we may form a bush with as many branches as we like, taking care to shift them from pot to pot as they grow, and when the scarlet bractæ appear the plant is most extraordinary. Young plants of these then must be treated accordingly, and those more advanced must be

shifted if at all confined in the root.

Pleroma elegans requires similar treatment.

Rondeletia speciosa major is generally shown tortured round a trellis. It is far better grown as a weeping standard, and wants but little care beyond watering when getting dry.

The Stove or Hothouse generally should be kept moist and warm, 70° by day, and 60° by night. All the young plants should be examined, and such as require it repotted a size larger. Cuttings may be taken from all the growing plants in which there is wood in a right condition. The best that can be had are shoots when from an inch and a half to two inches long; these taken off at the bottom will at all times strike freely, but it is not always the case with the tops of longer shoots on the ends of branches.

Seeds of all kinds requiring the stove may be sown now; those of stove plants especially; and if there be any seedlings not yet potted off, let it be done directly.

Syringe everywhere but where there is flower; for the spots of wet will spoil the best. Now and then flood the floor of the house, and water the iron pipes, to raise a kind of steam, before shutting up the house for the night.

CONSERVATORY.

THE work in this department is almost a repetition of last month's, and the duties perfectly similar. It consists of removing plants that are done with, procuring from the stove and greenhouse others to fill their places, cleaning the beds,

borders, shelves, and floor, removing dead leaves and petals, cutting off decayed flowers, preserving sufficient heat to suit the plants that may be in the building, particularly as some will have come from the stove.

GREENHOUSE.

THIS may be kept as open as possible all day in fine weather, for the plants cannot have too much air. The floor and shelves must be kept dry.

Acacias are for the most part in bloom and require frequent watering, the rule for which may be when the surface is dry.

Chorozemas, *Hoveas*, and *Pimeleas*, require also great care in watering; too much will do mischief, and from too little they soon suffer; but if none be given while the surface is damp, and they are watered liberally when it dries, there will not be any danger.

Crassulas, though fleshy in the leaf, are like many succulents, impatient of wet. They want water seldom, and most of the Greenhouse Cacti and Epiphyllums partake of this disposition. This used to be carried to excess, and they were grown on brick rubbish, crocks of pots, &c.; but they will all thrive best in light sandy loam, peat, and a little cow-dung mould. All kinds of plants must have their dead leaves removed, the surface of the soil in the pots stirred, and, if at all sour, thrown out and replaced with fresh compost.

Fuchsias are growing fast, and only want the inner branches removed and the weakly ones cut away.

Seedlings of all kinds that are forward enough should be potted off, as also cuttings that are rooted. All the growing plants that have filled their pots with roots must be shifted into larger ones. Cut-

tings may be taken from any thing that offers them in a proper state, for it is not the particular season, but the particular state of the wood that should guide us in this particular, except when some great object is to be attained, when we take every advantage of the plant and strike cuttings under every disadvantage.

Tropeolums depend greatly on the management, whether they merely exist or grow luxuriantly. They require air, and not very frequent watering. They ought to have some kind of support, for they grow an immense length and twine about in all directions; if the support, whether a wire trellis or a dead branch, be not ample, the ends of the shoots will twine all together like a rope, and it is almost impossible to liberate them without breaking and otherwise damaging many of them. The soil they grow in should be turfy peat, loam and sand; great care is required in watering; a nice airy place in the house next the glass, and constant attention to the direction of the young shoots, which grow so fast as to get all in confusion in two or three days. The three worth growing in perfection are *T. tricolor*, which is scarlet, black and yellow, the shape of a horn; *T. brachyceras*, yellow, and *T. azurea*, lead colour or dull blue. These three require the same treatment, and form three pretty objects. If you have not got them, procure them, for they are interesting plants.

If the plants in the house com-

prise Geraniums and Camellias in any number, conform to the directions laid down for the Camellia and Geranium houses.

Pruning Greenhouse plants is not so general a practice as it ought to be. As soon as the bloom declines and before the new growth commences plants ought to be pruned into a good shape; calculating upon the new growth and its probable extent, the branches should be cut back in such way that the new wood shall form a handsome surface all round alike or thereabouts, and we cannot be too careful in this operation, because the next year's plant depends on it. Some plants, as *Epacris*, for instance, grow at the end of the branch on which the bloom comes all up the stem. If this end growth is allowed, there will be nothing but a series of lanky upright branches. It nevertheless is necessary to keep it

until after the bloom has declined, when it may be cut down as low as we please with advantage. Acacias also bloom all up the stem, and the growth continues at the end. The knife therefore must be used without fear; consider where you want the new growth to reach, and cut down accordingly. The pruning applies to every plant that will bear the knife.

Many of the plants may be thus pruned, shifted into pots a size larger, and turned out towards the end of the month in the open garden, where they are naturally sheltered from high winds, and set on a bottom of pavement or of concrete, or for want of either on ashes or gravel, but one object is to protect the pots from worms, which at best are a nuisance, and often greatly injure a specimen, by damaging the fine fibres.

HEATH STRUCTURES.

THE duty here may be stated in few words, after our last month's directions. Give all the air you can by throwing open every part of the house in fine weather. Shade those plants that are in bloom; look to the shifting of the young plants as they grow; pot off cuttings as they strike; take off others

as they offer themselves, and be very careful to water such plants as are dry, and this can only be determined by an examination of every plant before you give a drop. Previous instructions will suggest what should have been done, and if not done no time should be lost.

GERANIUM HOUSE.

As these flowers are coming into bloom, and nearly bursting, they must not be syringed much longer, but they should be fumi-

gated well before they expose their petals, to clear the house of any lurking green-fly, and a shade ought to be put inside the rafters,

of gauze, or some other material, such as the hexagonal net; it is to break off the rays of the sun, and to keep out bees and other flying insects, that would impregnate the seed-vessel, and the bloom would immediately fail. If the weather should prove very bright, there must be a heavier shading outside, for the hot sun destroys the colour, as well as shortens the period of bloom. Give as much air as you can safely on fine days; see that the drainage is good, which, if any appear moist when the rest are dry, must be defective, in which case the ball must be turned out and examined, and the defect remedied. Generally it will appear that the soil has run down among the crocks, and formed a solid mass, in which case the crocks must be picked away, and new ones put in their place; sometimes it will merely be the hole stopped up, when you will only have to pick out the soil. This is very apt to be the case when the shelves are perfectly flat, and the bottom of the pot flat, when the fine stuff that washes through the crocks cannot get away, and forms

a solid stopping in the hole itself. All the late plants may require another shift, especially the smaller ones that are growing up; therefore all these should be looked to. The latest of the show specimens may want some more wooden legs, but we are no friends to this operation. Bushy plants without support should be all round alike, and this can only be managed by constant turning; for however the house may be constructed, one side of every plant will be darker than the other. The best way to show geraniums as a florist's flower, would be to grow them with only one heart; rub off all shoots the instant they appear, and show but one truss. The full-grown blooming specimens, which will have pretty well filled their last pots, will derive benefit from watering once out of half-a-dozen times with liquid manure, made with a spadeful of thoroughly decomposed cow-dung to six gallons of water; and if cow-dung cannot be had, dung from an old melon-bed; stir it two or three days, and then use the clear liquor when the stuff has settled.

CAMELLIA HOUSE.

THE plants having done blooming and been pruned and shifted, as directed, they have only to be attended to in the growth of the new wood; they will require plenty of watering; for they will absorb moisture rapidly, but they must not have it till the surface of the pot is dry, and then plenty of it. Keep the frost out and no more; give air, but no draught on all fine days, and watch for the perfecting

of their growth. If any shoots come out where they are not wanted rub them off as soon as you discover them; but they will want no more shifting until the new growth is perfected and the leaves of their full size and right colour. Then they will bear the open air, and can be placed in a shady situation, protected from high wind, and there remain until it is time to return to their winter-quarters.

THE VINERY.

THE thinning of the grapes at the various seasons of growth advance is one of the principal operations still, and constant attention to pick off the tendrils and stop side shoots is necessary. Some bunches which have heavy shoulders, require them to be supported, to let the air and sun in

among them. Syringing the backward ones until they begin to show colour, and except when in bloom, is necessary, and steaming the house by watering the pipes and floor before shutting up, is good alike for all stages. Give air when you can do it without lowering the temperature.

WINDOW GARDENING.

If the weather be at all favourable this month, the plants in dwelling-houses are emancipated about the third week; all fear of frost that will hurt ordinary window-plants being at an end. Examine them all to see if the roots fill the pots, and if they do have them shifted for others a size larger, then let them be exposed as much to the air as possible, and let them have all the warm showers of rain: if it be long dry, water the plants all over with a fine rose; it will wash them like a shower of rain, and if this does not clean some of them, take a sponge and fairly wash off the dirt with soap and warm water.

Of the Plants adapted for Windows there are the Scarlet Geranium, now beginning to bloom, several sorts of Ericas, Cyclamens, Tropeolums, which are now beginning to grow, and must have something to climb on; Double Wallflowers, Acacia armata, Hyacinths, Narcissus, Jonquils, and Azalea Indica.

Those pots which do not crowd the plants, may nevertheless have the soil old and sour at the top; let the surface therefore be stirred down to the fibres, without bruising or disturbing them, and throw out all the loose stuff; fill the pots up with fresh compost. We may be told that in manufacturing towns there is no fresh compost to be had. This is one of the drawbacks on plant-growing in London, or in large towns; but if application be made at a nursery, or to the party of whom the plants were bought, the supply will soon be forthcoming; besides, it must be recollected, for we have often said as much, it is the keeping of the plants in the same pots until they are crammed full of roots, that kills them, because they always require very close watching and watering; twenty-four hours' neglect when the plants have nothing to live on but the water, will at all events complete the death.

This month the plants will require examining daily, and, if dry,

watering; but if any appear more wet than the rest, you will do well to look to the bottom hole and see if it be open and free, or stopped up with dirt; if it be open the stoppage must be higher up the pot; you must therefore carefully turn out the ball, when you may possibly find it full of worm casts, in which case you must squeeze it gently to make the earth fall away, and then re-pot the plant in fresh stuff, cutting the plant back a

little to make allowance for the loss the root may have sustained.

Wardian Cases.—These may have air now and then, and the glass be cleaned; and when the steam rises and hangs on the sides to impede the view of the plants, opening the case for a short time disperses it. Dead leaves must be removed from the plants; and if any have gone off dead, they should be taken out at once, and others put in their places.

J U N E.

PLEASURE GROUND AND SHRUBBERY.

THIS month many of the flowering trees and shrubs will have bloomed, and offer the opportunity of pruning. As we have already directed, at the decline of the bloom fail not to cut back everything into shape, for on the manner in which this is done depends entirely the beauty of the subject next season.

Almond, Lilac, Guelder Roses, and other flowering trees, should also be carefully cut back into good form, making allowance for the growth of the new wood.

American Plants, such as *Rhododendrons, Azaleas, Kalmias, Andromedas,* and such like, must be well watered immediately after pruning; for if they lack moisture while making their new wood, they will fail in setting for bloom next year. The seed-pods must be removed at the same time, for when they are allowed to swell, it is a great drawback from that nourishment that should go to the new branches.

As a general rule, without specifying every individual tree or shrub, all of them can be improved in form by the judicious use of the knife before they make their growth, because afterwards we are restrained by the bloom-buds.

Mowing the Lawn is now almost a continuous job; if there be much of it the scythe is always going

unless the mowing-machine is used, and the advantage of this is always felt in the summer months, because it works when the grass is dry.

The *verges* of the borders and paths, and at the edge of roads, must be cut even and trimmed on both sides; for if these are allowed to grow wild or spread, they spoil the appearance of the finest grounds.

In the large borders of the pleasure ground you may advantageously plant Dahlias, and nearer the edges a few other continuous blooming subjects, without much trouble, although they are not at all necessary. Mignonette seed sprinkled over the great borders among the shrubs makes a very interesting weed, on account of its rich perfume.

If a scythe be used for the lawn, the one patented by Mr. Boyd, which is adjusted by the mere turn of a screw to anybody's hand, is by far the best. The use of this has now become general, and few things have done more for the garden. We have had one in use several years, and worn out three blades by sheer hard work, and the thing does its work as well as it did the first day.

If done by a machine, we have to choose between a hand and a horse size, or do as Her Majesty's

gardener does, use both; but then there are many acres of lawn at Buckingham Gardens, and both are kept going. The advantage of the machine is the cutting so level and so short, and the grass is rolled at the same time that it is mowed. As there have been several of these machines, it is necessary to say that it goes by the name of Shanks's Patent; whether there be such a person now in existence we know not.

We need hardly add that all the paths, roads, and grass must be kept well swept, and free from rubbish and worm casts. In all other matters consult last month's operations.

Subjects in Flower.—Berberis, Guelder Roses, Azaleas, Honey-suckles, Tulip Tree, Magnolias, Syringa, Bay-Tree, Sweetbriar, Mountain Ash, Privet Rose, Rose Acacia or Robinia, Rhododendron, Kalmia, Lilac, &c.

THE FLOWER GARDEN.

Alpines want but little attention now. Keep them clear of weeds, and see that they are well drained.

Anemones.—The autumn planted are out of flower before the end of the month, and when the leaves begin to turn yellow they must be taken up and dried in the shade before they are stored away in their boxes. Those planted in February are coming into bloom, and must, if the weather be dry, be watered between the rows, but not over the flowers. The soil may be stirred between the rows before they are watered. If length of bloom be an object, let them be shaded.

Annuals, hardy, may be sown to succeed the earliest. Those which are up must be thinned out so that not more than from three to four of some plants, and say six or eight of others, be allowed to remain in a patch. The smaller kinds, six or eight, such as Larkspur, Candy Tuft, Collinsia, small Lupins, Erysimum, Sweet Peas, &c., all of which look best in good patches; but Convolvulus, Co-

reopsis, Zinnia, Aster, Stock, and such as spread into good bushy plants want no more than three or four left to grow.

Annuals, tender, such as Balsams and Cockscombs, should have their pots changed as often as the roots fill the old ones. The former does not require so much heat as the latter, and would do now if the pots were set in the open air, though they would not grow so fast. *Clintonia pulchella*, *Rhodanthe Manglesii*, and many other annuals considered delicate, will, nevertheless, grow well in the beds and borders. In all cases where annuals are grown in pots it is essential they should be near the glass and have as much air as possible, or they will draw up lanky and hang over the pots; but they may be grown out-of-doors if a proper degree of attention be paid to the watering and the shifting into larger pots when the roots reach the sides of the pots they are growing in.

Annuals in Pots in sufficient number to supply the borders and

beds as other subjects go out of bloom are grown with great advantage where a regular flower-garden in front of the house, or near the mansion, is to be kept up well, and the culture is very simple when you have plenty of room. This system well followed up enables us to change the entire contents of a bed or border in very little time. Plunging all the small plants in pots of the same size renders the changes when required almost instantaneous. All the pots must be of one size, and they should be wide-mouthed, because they can be taken up and others dropped in their places in an incredibly short time. The China Asters, Stocks, Zinnias, Marigolds, and other sorts usually planted out, should now be put out three in a pot round the outer edge; all the smaller sorts may be sown at various seasons, and when up thinned out to give them room to grow. All these pots ought to be placed in rows; five or six rows form a sort of bed, that you can always reach across to weed and water them, and if there are more than five or six rows make another bed with five or six rows more. Imagine a portion of garden kept up by these means, and you will observe that it need never be untidy. No sooner may all the patches of one sort appear shabby and out of bloom than half-an-hour's work will remove them, and put others in the best order in their places; and even if we do not profess to grow all in pots, it is of great service to have plenty of annuals in pots, to turn out with their balls of earth entire, and therefore movable without damage in any stage of growth or bloom.

Auriculas.—Gather seed if any have been suffered to swell, as soon as the seed vessels appear brown and before they open. Remove all dead leaves, look well to the drainage, and see that they all stand on a dry bottom. If the soil appears close or mossy, or discoloured at top, stir it well nearly down to the fibres. In gathering the seed take the vessels or pods singly, and not the bunch, for they do not all ripen at once.

Beds and Borders.—These cannot well be disturbed too often, so that the roots of the plants are not injured; forking or hoeing or raking not only removes the weeds, but it disturbs many and destroys some of the vermin which prey upon flowers; besides, it keeps the place clean, which is of the highest importance. Saving the necessary spaces for anything that is to be planted, all vacancies should be filled up with something: *Verbenas*, *Scarlet Geraniums*, annuals, green-house plants, anything that grows well out of doors may be used. Stakes should be driven down where *Dahlias* are to go, and one should be driven down to every *Hollyhock*. The edgings, whether of box or other subject, should be trimmed and kept in order, and the paths kept clean.

Carnations and Picotees.—These have begun to send up their blooming stems, and they must be carefully and loosely supported by ties to their sticks. In beds and borders they do not often require watering, but those in their blooming pots must be regularly supplied whenever they are dry, because they cannot help themselves. By the end of the month they will show their buds, when

all but the best three should be removed, and in selecting these do not leave them too close together.

Chrysanthemums.—Continue to propagate these by taking off the tops and striking them under a hand-glass in the common border, and cut back those intended for specimens into a proper shape. Those intended for cut blooms must not have any of the tops taken, however ugly they may grow. It is not unusual to see a shoot grow five or six feet by blooming time, for all side-shoots are removed altogether to throw the strength of the plant into the one single bunch.

Crocuses are now ugly, because the long leaves sprawl about. These must not be cut off, because it stops the growth of the bulb. The best way to treat them is to tie the leaves in a knot. As soon as the foliage turns yellow they may be taken up.

Dahlias planted last month are making growth; and to do justice to them as the side branches grow, they should be supported by three or four other stakes round the centre one and sloping outwards, for the branches will not sustain their own weight. In limited establishments the one stake is made to do alone by tying bast matting to it, and supporting the branches in a sort of loop. If any of the original small sticks have been left to those planted out last month be careful to release them, and the ties also, for if left they will cut the stem quite through before the plant has half grown. Plant out for succession, of good flowers, all you intend to grow, and plunge all the plants in

small pots close together in a bed, or give them eight-inch pots to bloom in.

Delphiniums are tall and strong wiry plants, and if exposed require one stake for the support of the centre stem.

Herbaceous plants are now in full advance, and many need support. Pæonies are too heavy to sustain themselves. Put three or four stakes a foot high round them, and with a bit of strong bast matting fastened to each as it is passed round, form a sort of fence round them; it confines them with the best effect; without this they would lay down all round with the first shower of rain. Taller growing subjects, as the *Lychnis*, *Monkshood*, *Phloxes*, &c., only require one stake and a tie round them. Remove weeds, which may frequently come up among herbaceous plants, and not only close to them, but actually in the middle of one occasionally.

Hollyhocks.—Take off dead leaves and those damaged by vermin; and where this is the case, hunt for snails or slugs concealed in the plant. As their stems rise up, they must be watered, and if more than one rises, take the weaker ones away; leave only one strong stem to go up to bloom, except where the plants have been left to spread from year to year for the purpose of throwing up a group. It is not too late to plant out *Hollyhocks* from pots.

Hyacinths.—Some of these may yet be in flower in the open ground, but as soon as the leaves turn colour take them up, lay them on the surface, and throw a little light soil over them to keep the sun from the bulbs, for a few

days, and then dry them in the shade.

Lilies.—Where the tall sorts are growing in the open ground, they must have neat supports; for although they can resist moderate breezes, strong winds will damage them.

Pansies.—Take off side-shoots and strike them in the common border under a hand-glass. In three or four weeks they will be ready to plant out or pot, to succeed those they are taken from, or to use as ornaments to the borders. Keep those in beds free from weeds, which at this period grow rapidly. Those grown in pots may be placed in the open air, or, if they have done the work they were intended for, they may be bedded out without their pots.

Pinks.—These bring plenty of work for June. First, we have to see that we have removed from the plants all the flower stems but the strongest one, or at the most two; then that all the buds on each stem but two, or at most three, have been taken off; and then we have to tie very carefully a piece of bast matting round the middle of all the buds that are nearly bursting, for the tie is to prevent that; then the calyx should be torn down all round to the tie, that is, all the five divisions should be opened down to the middle. Next, they must be watched, and watered whenever they are too dry, and shaded from the hot sun; and when all this is done our work is only just begun. As the outside petals of the flowers are developed, the large ones must be carefully brought down to form the outside row, and they are five or six in number; set these as

circular as possible, and as the blooming progresses bring the next in size down upon them, taking care to place the centre of each over the place where the others divide, and continue with the next size to make a third row if you can with perfect or well-marked petals, and if there were any more perfect you might continue this; but the centre ones are generally small and irregularly marked. The northern florists will not use an imperfect one, but pull all that are not well-marked out, while the southern florists keep in many that have no distinct character about them, and the centre is too often confused. Many florists, however, delay all this dressing until the flower is fully bloomed, and dress them after it is cut. There is, however, no comparison between the flower dressed while it grows, and that dressed after it is cut. Some growers put a card with a round hole on the bud, and keep the lower petals flat by bringing it up close under them. The way to do this is to get a round card, make a hole that will just fit tightly half way down the bud where the tie is, and do this before the bud expands above. Others get the card after the flower is half bloomed and cut a slit in it from the outside to the centre hole: this enables them to pass the stem through, and they can bring it up just as well. Towards the end of the month, take off all the bottom shoots to make increase; each of these may be cut at the third joint, the leaves be stripped off up to the second, and these so prepared are put into rich soil in a shady bed made on purpose, and watered until it

is almost like thick mud, into which they are stuck scarcely an inch apart in patches previously marked out, by placing the hand-glass that is to cover them on the soft soil before any are put out. They are then covered with the hand-glass, and are almost left to themselves till rooted. Some growers create a little bottom-heat by digging a hole eighteen inches deep and putting a foot of hot stable dung in the bottom, trodden down hard, and then put six inches of soil on the top. This hastens the striking a little, but it is unnecessary. As the flowers are generally named, labels ought to be put to distinguish the cuttings, and show what they are, and what they came from. It should not be done till the Pinks are fairly in bloom. If seed be wanted, pull out petals as they die, for otherwise they hold so much wet that the seed is almost always rotted. Sow Pink seed in pots or pans.

Polyanthuses and *Primroses* will, if neglected, be infested with the red spider, from the effects of which it is difficult to recover them. Neglect of watering is the most fatal; but there are no plants that want more watching. Slugs will sometimes do them immense mischief in a little time. They appear to poison them as well as to eat them. Therefore they must be carefully examined the instant you detect a hole in a leaf. Those plants in the borders can no more do without attention than those in pots, and are in fact more liable to depredations.

Ranunculuses require a good deal of water, and it should not touch the foliage nor the bloom; but

warm showers of rain are beneficial. The autumn-planted ones have done flowering, and the leaves will show when they have done their work by turning yellow, and then is the time to take them up. The spring-planted are coming into bloom, and will be fully developed before the end of the month. The flowers must be shaded to preserve the colour, and the roots do not like the summer heat till they have made their growth and want to repose, and then the rain should be kept off. Sow seed if you have any, and cover with a mat till it is up; then they must be shaded.

Roses for exhibition must be shaded; but those intended for show should never be planted in the ornamental part of the garden, for they must be closer pruned, and many buds removed to induce a larger growth for the individual flowers. Syringe all of them on the least approach of the green-fly, and it is beneficial even when there are none.

Stocks.—There are now so many varieties (if not species) of this beautiful flower, that it is difficult to treat of them; but the best garden Stock is the German ten week, called by them "Large flowering Summer Stock." These having been sown in pans or boxes are ready to prick out an inch apart in other pans, and when watered put them in a cold frame closed up for two or three days, and then let them have all the weather but frost. Biennial Stocks are sowed at various seasons. Those called Intermediate may be sown at the end of the present month, or before if you like; so also may Bromptons and Queens

and all the varieties that last two years, or rather that must be sown one year and bloom the second; but the earliest may be planted out in beds, and in this operation the greatest care must be taken, because the plants are small, the roots delicate, and if put in carelessly they must perish. The best way is to roll or tread the bed, then rake it gently quite even, and plant with a dibble, pressing the soil close to the roots. Water them in and shade them from the sun the first day or two. •

Tulips.—The best bed must now have no sun to shine on them the middle hours of the day. They must have all the air you can give them. Look at your Tulip book and at the bed to see that all the flowers are right in their places, and if there be any mistakes make memoranda in the book; notice also opposite the name of each flower, whether it is foul, fair, or fine, also whether it is too tall or short for its place, or quite right. Keep in mind that the sun damages the colours, except when rising or setting and shining obliquely, and therefore that some one must be always in attendance to keep the upper cloth as much off as possible as the sun changes its situation, because light and air are indispensable. When the bloom declines, take the cloth off and let them have all the air and rain.

Breeders or Seedling Tulips are those which have not up to the time of planting properly broken into colours. Look carefully over these and reject all that have the slightest stain at the bottom, all that have thin petals, all that

whether they have broken into stripes or not. If any have broken into colours—for it must be mentioned that seedling Tulips generally bloom first with only self-coloured petals with a white or yellow base—see whether it is good enough to add to the collection or not, for unless it be different from what we have already, or better than any of its colour, it is only fit for the border.

Early Tulips are very distinct from the varieties grown in collection. Their chief characteristics are, first, blooming a month earlier; secondly, their colours are much more brilliant and in greater diversity; thirdly, they are much more coarse and indifferent in their markings; fourthly, the great majority are very foul coloured on the base, most of them being stained black or blue or dark colour instead of pure white or yellow; lastly, they are not so well formed. On this account they are only esteemed for their brilliant appearance in border groups. They are seldom, if ever, grown in beds, except by dealers, but planted in their separate sorts six or seven in a group of the same colour, and the groups all varied, but still each distinct of one sort. They are among the very best of border spring flowers. They will have done flowering this month, and may be taken up directly the leaves turn colour or the tops of the flower stems turn brown, and each sort should be kept to itself, and be dried in the shade before they are put into their bags or boxes till planting time.

Wallflowers of the double kind, whether the rich golden, the blood

colour, or the dark, are far preferable to the single ones, although they are not the most fragrant. When the double ones have declined flowering, small side shoots come out in plenty. These should be taken off when two inches long, the lower leaves stripped off and be placed in the common border under a hand-glass, where they will very soon strike root, when they may be potted off in three-inch pots,

and kept in a common garden-frame.

When any of the flowers in the borders or beds decline in flower, and are not of a nature to be removed, all that can be done is to cut down their flower stems and remove all dead and discoloured leaves. This frequently gives more room and enables us to put other subjects between them for a succession of flowers.

THE VEGETABLE GARDEN.

Artichokes.—The first will come to perfection this month. The crown heads being the finest, those from the side branches will be smaller, but will be quite as fine in flavour. Nothing is required but keeping the ground clean between the plants.

Artichokes, Jerusalem.—Hoe between the rows, loosen the soil, and draw earth up to their stems, as you would to potatoes.

Asparagus.—Now in full cut, but we have to take care that we do not cut too long. If the season has been forward, there ought to be no cutting after the middle of the month; if late, you may cut to the last week. The effect of cutting too long is to weaken them for the next season; clean the beds of weeds by hand, for when the Asparagus is allowed to grow up, it is more difficult to reach among the plants, and if weeds are not kept down completely, they exhaust the soil, and weaken the plants.

Beans, Broad.—A few more may be got in if they are favourites,

and a late supply be wanted. Hoe the ground between the rows of those already up, and top those that are in flower.

Beans, Kidney or French.—Hoe the ground between the rows of those that are up, and draw earth to their stems. Sow another crop in rows two feet apart, and six inches distance in the rows: they may be sown twice this month.

Beans, Scarlet Runners.—You may put in a few more at the beginning of the month, and put sticks to those already up, unless you intend to grow them without; loosen the earth about them, and draw earth to their roots, and keep them free from weeds.

Beet Root.—If you have already hoed these out to their proper distances, you have only to go over them with the hoe, to keep them clear of weeds, but you will most likely find two plants close together here and there, that were not seen at the first hoeing, and there will also be a few straggling plants that were missed; all this must be looked to at the second

hoeing; and if weeds come up afterwards, they may require a third hoeing.

Borecole, or Scotch Kale, should be thinned in their seed-beds, and the largest may be planted out if you have ground to spare: it is both a handsome and a useful crop, for it is more hardy than any other kind of greens. There is a variegated kind that is good for garnishing; they do not show much of their variegations while small, therefore it is well to prick them out six inches apart, and not to plant them in their final place until you can make choice of the best, which is that which curls most.

Brocoli.—From the seed-bed you may take the largest plants to put out at once, or transplant them into beds tolerably close to grow into strength before their final planting. The early sorts should be planted out at once, and sow seed of the several kinds to succeed those already growing. The ground should be well dug or trenched and dressed before the seed is sown; and it cannot be too much bruised and knocked about. We do not like the ground fresh dunged for planting out unless it be for sorts that come off early; when Brocoli have to stand the winter, they should not be excited too much.

Brussels Sprouts may be pricked out or planted out, but the former is often the most convenient, because it does not take up so much ground, and this is an object until early crops of vegetables are got off.

Cabbage.—This is one of the most useful of all vegetables. By this time you have plenty large enough to plant out, and others

small enough to prick out; and you may sow a bit more seed, for cabbage plants will always fill up vacant pieces of ground, and always come in useful. Hoe between the cabbages already planted out and growing, and draw earth to them, well clearing the place of all weeds.

Cabbage, Pickling.—Plant out where they are to complete their growth. It is better to put a row out here and there in different parts of the garden; if they are planted out on a piece, they must be at least eighteen inches apart in the rows, and the rows two feet to three feet from each other.

Cabbage, Savoy.—Plant out as ground can be spared, and prick out those that are too small, or that there is no room for at present; there may be several different seasons for planting.

Cardoons or Chardoons.—These may be planted out in the places where they are to blanch. It has been the practice to give these plants a wide berth, from three and a half to four feet distance one way, and a foot more the other, and unless they are as wide as this apart, you cannot get earth enough to draw to the stems. If we were to cultivate the Cardoon, we should plant them in trenches like Celery, only much larger; for as it is only the white part of the stalks that can be eaten, by beginning in a trench eighteen inches deep, we should have that length of stalk blanched by the time the trench was filled, and there would be no difficulty in earthing them up a foot more; there must be four or five feet at least between the rows to allow of this; but since Sea Kale has been introduced, we

should never think of wasting the ground on Cardoons.

Carrots.—Go over the beds where the plants are large enough, and hoe them out to six or eight inches distance, and clear away the weeds, and the earlier ones that have been once hoed must be hoed again to get rid of the weeds.

Cauliflowers.—Look over all those that are coming to perfection, and break down some of the leaves to cover the white heads, that the sun may be kept off, and the colour preserved: hoe between those that have been planted later, to open the ground, and destroy the weeds. Prick out the spring-sown ones six inches apart in a bit of well-dressed ground, in an open situation; they will do well for five or six weeks, and grow into strength ready for final planting. If you desire to save seed, mark some of the largest heads that they may be left for that purpose, and of these you must not break down the leaves. Some cut the first heads, and depend on further shoots for the seed; we recommend the whole flower to be allowed to bloom.

Celery.—Those which have been pricked out and grown strong enough, may now be planted in trenches nine or ten inches deep; when the trench is dug out a foot deep, put two or three inches' thickness of well-rotted dung at the bottom, and fork up the bottom to mix with it, and then tread it down; this makes a firm bottom to plant on. In preparing the plants take off all side shoots, trim off the broken leaves, and plant with a dibble, closing the earth about the roots firmly. Let the trenches

be three to four feet apart, according to the sort, three feet being enough for small sorts, and four feet for the larger.

Coleworts.—We have already said that we prefer young cabbage plants to even the best of the Coleworts, for they are superior in flavour; but if Coleworts are used, the Rosette Colewort, which when well grown is really a Cabbage in miniature, is the best for summer, and the hardy Green is the best for winter; the former may therefore be sown now; but if young plants of the best Cabbage be preferred, that which is sown now may be used, and if what can be spared be planted out, they will cabbage late, and come in about September.

Endive.—Sow the second and fourth week two crops of Endive; if you have any already forward enough, plant a few out, but all that is sown before June is apt to run; now, however, is the time to plant the first crop, and it should be blanched and eaten early, before it starts off for seed.

Herbs.—Plant out Sage, Mint, Thyme, Basil, Marjoram, Fennel, and all the other herbs that are sown, and nearly every one may be planted in rows about two feet asunder, and the plants in the row may be a foot from each other. The treatment of these is so similar that all of them ought to be on one border, or in one quarter of the garden; some of the large-growing herbs may have more room, but none of those are pot-herbs, and except for medical purposes, are rarely grown. As, however, most of the culinary herbs are perennials, they only want sowing once, because they

can be multiplied by offsets and slips. You may this month gather herbs to dry, Mint, Sage, Marjoram, Pennyroyal, Thyme, Basil, &c., dry them in the shade, and look to them occasionally while drying, that they may not lie too close, and get mildew.

Horseradish.—Weed and hoe the beds, and be careful to keep the surface clean, and free from anything that will impede the growth.

Kale, Sea.—Go over the ridges where this is growing daily, for when the shoots disturb the surface, it is ready to cut; remove the soil down to the crown of the root on one side, and cut off the shoots close to the base; but as all the shoots will not be forward alike, leave those that have not grown their full length to perfect themselves; replace all the earth as high as it was before you disturbed it; the Kale thus produced is said to be of better flavour than that which has been forced. When you have cut all that is worth taking from a plant, take all the earth that covered it away, and level it to the crown of the roots, that it may grow naturally, but not fit to eat, and in taking the blanched shoots, they should not be quite cleared away; the small thin shoots must be left to grow.

Leeks.—Take the largest plants from the seed-bed as soon as they are fit to transplant. It is a good plan to draw a drill for every row, say two inches deep, and plant them six to nine inches asunder at the bottom of the drill; let the drills be a foot or fifteen inches apart; water them in well, and in due time, when they have grown a little, fill up the drills, it is like

earthing them up two inches. In very fine situations, and good ground, nine inches will be found the best distance.

Lettuce.—Plant out all the sorts, and as this is a crop soon off, they may be planted between the rows of Beans and Peas lately sowed, because the Lettuces will be done with before the other crop is forward enough to be injured by them. Tie up for blanching any that are beginning to turn in.

Nasturtiums.—See that these have proper support; as they grow their shoots must be placed in a right position to go up the supporters, because they constantly cling to something, and will tangle into each other if neglected, and this will not only spoil the appearance but also the crop.

Onions.—If these have been hoed once, they will, nevertheless, want hoeing again, not only to remove the plants that escaped notice, or that the hoe had missed, but also to clear them of weeds; and this must be repeated whenever weeds grow, or they would totally spoil the crop. Those which have not been thinned out must be hoed carefully, so as to leave the plants six inches apart all over the bed, and to entirely eradicate the weeds.

Parsley.—Go over this, and if there be any with leaves that do not curl well, pull them out; this is a most useful crop if carefully grown, of a rich curled quality.

Parsnips.—Thin these out like Beetroot, giving abundance of room to swell, for the roots must have room to grow to a good size, otherwise they do not store well; also keep them very clear of weeds.

Peas.—Take off the tops of those in bloom; put proper sticks to support them according to the height they grow; as later ones come up stir the earth with the hoe, draw the soil to them, remove all weeds, and stick them as soon as they have begun to grow. If the ground be very dry, water the drills well before sowing, but crops may be still got in with advantage, the tall large kinds, as well as those which come in quickly; and it may be desirable in small gardens to water all the Peas well in hot dry weather.

Potatoes should be earthed up when they are well above the ground, and again when they have grown eight or ten inches; each time the ground should be loosened all over, and the weeds removed.

Radishes, particularly the turnip kind, may be sown, and the beds that have worn out, and are done with, should be dug ready for anything else; they will do well to prick out the Cabbage, Cauliflower, Brussels Sprouts, and other greens on.

Rhubarb must be hoed between, and in pulling it for use take hold of the stems of the leaves, and pull them sideways; continue to take the largest all over the piece or bed, and do not pull any one plant too close; hoe out the seedling Rhubarb to thin the plants, or take the largest and plant out.

Salads constantly wanted should be sown for succession, especially Mustard, Cress, Salad Radish, Rape, Corn Salad, &c., but the Lettuce will supersede these in a great measure.

Spinach.—Thin out that which is already up, and sow more for succession.

Turnips.—Sow a good quantity for autumn use, and it would be well to wait for rain; if this, however, does not come by the time the seed should be sown, let the space to be sown be well watered once or twice before the day of sowing, for this crop above all others rarely comes to anything if sown when the soil is dry.

Water Cress can only be grown well in water, and to provide this an excavation of eighteen inches deep, and any size, should be well puddled with clay, about four inches of mould put on the bottom, and water let in to form it into mud; the slips of Water Cress may be stuck in this, and then covered with water; an outlet should be made so that the water should never cover them more than two inches, and occasionally only even with the leaves. Bricks or blocks should be placed to stand on for the purpose of gathering; of course they will grow better planted by the side of a running stream, and if a supply of water constantly running could be given, they would grow in perfection.

General Remarks.—All beds and borders, and places where the crops are fairly done with, should be dug up or trenched, and properly dressed ready for anything that may be wanted there. The paths and alleys should be kept well hoed and cleaned, all weeds should be raked off when hoed from the ground, that they may not be trodden in again. Waste leaves, when Cabbages or other vegetables are cut, should be taken off the ground and used as slug and snail traps, if there be any about, for they attach themselves

to the leaves, which should be examined every morning, and the pests destroyed.

Vegetables in Season or in Store.

—Artichokes, Asparagus, Beans, Beet, Cabbage, Carrots, Cauli-

flowers, Celery, Chives, Eschalots, Horse Radish, Herbs of all kinds, Leeks, Lettuces, Onions, Peas, Potatoes, Radishes, Salads generally, Spinach, Turnips, young Greens or Coleworts, Brocoli.

THE ORCHARD AND FRUIT GARDEN.

Apricots, Peaches, Nectarines, and Plums, on walls require the completion of their summer arrangements. Whatever useless shoots were left on last month must be removed, and all the useful shoots tacked in, for there must be no more growing than is of service. Let this be done neatly; by no means have the wood crowded.

Thin all the fruit that is still too close together, and leave only a reasonable quantity to ripen; first, in mercy to the tree, which ought not to be too hard worked, and next for the benefit of the fruit, which will be so much the finer for being reduced in number: be guided by the situation of the fruit, for it is of as much consequence to have them equally divided all over the tree, as it is to restrict their numbers; they ought not to be nearer than four inches apart, even where they are thickest.

Let all fruit on the wall be gone over, even Morello and Bigarreau Cherries, as well as Maydukes and other early ones, ought not to be allowed to grow too thickly. By moderating the quantity of fruit each season, we may nearly always depend on a fair crop. By allowing an excess, the

tree suffers, and the following year gives us few or none. Cherries require as much care in removing their useless wood, and retaining a sufficient quantity of the stronger shoots to lay in evenly and neatly.

Currants and Gooseberries.—The greatest care required by these is to keep them clear of the caterpillar, and when all the remedies have been tried, none have been so effectual, nor so cheap in the end, as having them picked off and brushed off by children before they have got too much ahead. A syringe does a good deal, especially one the size of an engine, with the small and large holes in the rose of it according as it is required; this used with force dislodges many, but not all.

Raspberries.—These should be looked over and the fastenings made good; for when they have fully grown they weigh heavily on their supports.

Standard and Espalier Apples and Pears are always the better for thinning, and moreover profit just as much as wall-trees by removing all weak and useless shoots. A tree with what is commonly called a heavy crop, ought to lose half its fruit; for the remaining half would be much finer and the tree in better order to throw strong wood

for the next season. In espaliers the good strong shoots should be trained in the same manner as if they were on a wall, the only difference being in growing on a frame or trellis instead of solid bricks; the training is equally flat.

Strawberry-beds, if the weather prove dry, must be watered or the crop will be short; but they must not be watered to excess. When the soil is dry an inch below the surface, they may have a good supply to saturate the ground; but not again until the soil is again dry as before. If you have not mulched them, or laid straw between the rows, it should be done this month pretty early. The object, as we have before observed, is to keep the dirt from the fruit when heavy rains would work up a complete mass of mud. The effect of early mulching with long dung is to prevent the ground from drying, and the rains wash the juices of the dung to the roots. Where the soil is rich enough straw will do as well, for the cleanliness of the fruit is a first object; although, if strawberries that are muddy are put into water, it all falls away, and they drain in an hour or two quite dry, not perhaps without in some degree damaging the flavour. If you want plants, peg down the strongest runners into the ground, first forking it up a little; or, which is better, into small pots of soil brought for

the purpose, and take all other runners away. If you do not want plants, pull off all the runners as fast as they come; for it encourages the fruit, prevents confusion in the rows, and keeps a clear way for gathering them.

Vines on the wall.—However well those were managed last month, they require constant attention to keep them in order. All the wood not required for next year's bearing must be taken away, the fruit-bearing shoots must be stopped at the first or second joint past the bunch, and the bearing branches so shortened should be nailed fast to the wall. The wood growing for the next season must be fastened to the wall to prevent its blowing about by the wind. Pinch off all the tendrils, and guard against the crowding of the branches; and to do all this properly you must regularly go over it once a week at the least, breaking off all the barren laterals, and where there are two or three bunches on a shoot, which is not very uncommon, consider whether one is not sufficient, or at the most two, and take the other away. If a Vine has too much fruit the whole crop is thrown later, the grapes are smaller, and the chances of ripening are very much reduced.

In other respects, look to past months and see what has been neglected.

THE NURSERY.

Bud Peaches, Nectarines, Plums and Apricots, on proper stocks. Every year brings some new-fangled stock into notice for some-

thing. Bud your Apricots, says the oldest authority we have almost, on the Muscle, Brussels, or common Plum stock, and this is

continued with success to the present day: the Muscle or Brompton for Peaches and Nectarines; for Plums, the Muscle, the Brussels or the Pear-plum stock. But so far as we have been able to observe, any stock raised from the seed of the fruit to be worked upon it. It is the practice of some to sow the stones, to use all the vigorous growing seedlings for stocks, and to allow the weaker plants, which are clearly not so wild, to grow and fruit; for it is among them that there is the only chance of novelty.

Budding has been explained so often that a short notice will be sufficient. A bud is cut from the tree required to be propagated, and a small bit of the bark is shaved off with it, a slit is made in the bark of the stock to be grafted, and a cut made also across it. This enables us to raise the bark from the wood on both sides of the cut, to tuck in the bud and its bit of bark under the other, so that tying the bark of the stock down in its place again fastens in the bud, which then grows and forms the new sort, and the growth from the stock is everywhere else prevented, so that the entire vigour of the stock is thrown into the bud. Something, however, depends on the season, which if backward will throw the budding into next month. Plants budded last year must be examined, and the shoots, if strong, must be supported; all the growth of any portion of the stock must be cut off. If the shoots of the buds are shortened, a head will be formed the first year, and this is desirable for those worked low down for potting.

Evergreens may be propagated

by layers of the young wood. Layering is performed on those branches which can be made to reach the ground. The leaves are cleared away from the part, and a slit is made on the under side of the shoot just below a joint, and the knife is brought up through the joint, but not more than half way into the branch; the joint so split is then pegged down with a hooked twig, the shape of a hooked walking-stick, and held there, the earth being covered over it. But this is only adopted for subjects whose harder wood does not freely root. All deciduous plants are better layered in autumn.

The Seedlings of the more delicate or slow-growing subjects, grown in pots and in frames under lights, must be regularly weeded, and watered as the soil gets dry.

Many kinds of Seedlings may be transplanted now: the young *Firs* and *Pinus* tribe in general that are fast-growing; but if they have not progressed well in the seed-bed it may be deferred till next month; and the object of this is not so much to benefit those transplanted as to thin and give room to those left in the bed, which would suffer if left crowded; nevertheless, those transplanted will do well if watered in.

All the quarters should be cleaned, the surface hoed, and the weeds destroyed.

The Budding of *Roses* should be commenced as soon as the bark of the stocks will come up easily, or, as it is called, as soon as it runs; that is, separates easily from the wood under it; because the operation is the same as noticed in *Plums*. The slit is cut three-quarters of an inch long down the

bark of the stock, and a slight cut is made across it. The thin handle of the budding-knife, or a thin piece of hard wood, is tucked under the bark on both sides of the slit, the whole length. The bud is at the base of a leaf in the rose that is to be propagated, and a thin slice of the bark is cut out half an inch below the leaf, and the knife comes out half an inch above it. This brings out a little bit of wood with the bark, and this wood should be separated from the bark. The cross-cut on the stock enables us to slide the bark of the bud down under the other bark, till the bud and leaf is down to the cross-cut, a portion of the bark is then cut off above the leaf, and the small remainder is tucked in above the cross-cut, and tied fast with a bit of matting five or six times round, so as to cover the slit and merely leave the bud and leaf standing out at the cross mark. The dexterity with which this operation is performed commands success. The knife should be sharp, the juices of the bud and the stock must not have time to dry before all is done. In budding the rose, the work must be performed on the new wood; the strongest shoot there is near the top should be trimmed, all its side shoots removed, and the bud should be inserted on the upper side, but as close down to the old wood as possible; because it makes a firm resting-place for the head.

Roses may be propagated many ways; for if a piece of the wood with a single bud on it be fitted quickly into the wood of a stock, no matter how, it will unite. If a piece of root be fitted to a piece of Rose-tree, and when tied,

planted and watered directly, it will unite; but in the summer months the China varieties are the chief sorts propagated. After budding season is over newly-planted trees should be mulched, and the watering of them is as good as liquid manure; besides which it saves a good deal of watering. All sorts of perennials may still be sown for stock; they will be quite large enough to plant out by the planting-out time; and when these are planted too soon, they get too forward to stand the winter well. On a small scale for limited gardens, it matters but little when a pinch of seed is sown; but where thousands of plants are wanted, June is early enough for most perennials.

Look to the grafted plants; see that no parts of the stocks are growing; if they are, remove every leaf; for any branches or shoots that grow on the stock weaken the graft: remove all the clay-balls from the places of union which they covered. If the grafts have grown long let them be supported; for the wind will have great power. If heads are wanted directly, or the first season, cut back vigorous shoots, that they may break out into laterals. See that there are no weeds in the alleys between the different quarters or on the hedge-rows.

Seedling Plants of every description require great care; shading and watering are indispensable, until they are well established. Those sown the present year or last autumn must be kept clean; and unless sown very thinly and evenly they must be planted out, but small things are better grown the whole year.

PITS AND FRAMES.

THE frame ground is losing its interest this month. Carnations, Picotees, and Pinks are turned out and belong now to the flower garden. Pansies that are blooming in pots are no longer in want of protection. Half-hardy subjects are as well in the open air as any where; even Geraniums are independent of the ordinary weather of the season. Seed pans are almost the only necessary occupants, and even many of these are emptied of their contents. Auriculas, and especially small ones, may be the better for the facilities which frames afford for shading, but the lights should be tilted, and the covering slight, for they want air and light; and it is as well to set the boxes on bricks at the corners, that air may be given below as well as above.

All the lights should be removed from Rhododendrons and Azaleas in pots, Daphnes and other plants, or they would draw up weakly; but they might be all removed to any shady space in the garden if more convenient, and such as are in flower taken to the conservatory or other place where their bloom is wanted.

The frames may be useful for

Balsams in all stages, uncovered by day and covered at night; for if these are grown in any quantity they require a good deal of room, and fill us up in the houses; and some may be converted to hot-beds for Cockscombs and Balsams, the former requiring heat, and the latter being forwarded by it, though not absolutely wanting it.

Cinerarias may be kept with advantage in cold frames after they have bloomed, the stems cut down, the surface of the soil stirred and thrown out, and fresh soil put in to earth them up, for the side shoots will then root and be torn off for increase. If they have been bloomed in small pots they may be shifted, and in shifting, the surface mould may be rubbed off and the plants inserted low enough to let the earth come well up to the lower part of the shoots.

Dahlias will naturally be turned into the cold frames until all the planting is done, and then kept until they are plunged somewhere to merely grow for stock very close together.

In short the frames will be principally used to put all sorts of things out of the way.

THE FORCING GROUND, ETC.

THE business in this department is nearly over. The return of the plants and flowers that have been forced to complete their new growth and ripen their wood—a part of the business too much

neglected—is as important as any stage of forcing, because the same plants well managed will come much more kindly the next season, as they begin to rest sooner and consequently are ready to start

sooner than they did the first year. This applies particularly to Roses, Camellias, Rhododendrons, Kalmias, Lilacs, Almonds, and other shrubs and plants that make their growth after they have bloomed.

The *Fruit* of all kinds, ripe and ripening, must have the temperature kept up as high as ever, and must be watered judiciously; not kept wet, but not allowed to dry; 80° to 85° by day, and ten degrees lower at night.

Cucumbers and *Melons* require the heat to be kept up. Trim the plants, taking out old used-up branches, and giving room to young shoots, which will continue in bearing. Water and air must be given regularly, the latter especially when the sun shines hot. If the natural heat of the bed subsides too much, repair it with hot linings; divide the branches so as to lie evenly over the bed, and if too crowded remove the non-bearing shoots.

Pine-apples will require watering more frequently, and the temperature of the house kept up well; notwithstanding some of our best growers speak of 70° or 75° as the day temperature, 80° to 90° will do them no harm. When the sun is hot, air may be given without lowering the heat too much; but on its declining as the sun goes in or shines weaker, shut up; syringing before shutting up is desirable. As some of the plants begin to ripen do not water them so often; continue to nurse the suckers on the plants from which the fruit is cut, by earthing up to the base of them, that they may strike root into the soil as well as derive nourishment from the plant itself.

Strawberries may have abundance of air in sunny weather, and must not have much water. Keep the plants from flagging and that is all that is required. It is a common practice, when the plants have done bearing, to bed them. Clean off the bad leaves, and let them grow out of doors. They frequently bear in autumn.

The *Asparagus* bed and the *Sea-kale* have done their work, and the out-of-door productions have superseded most of the subjects hastened by artificial heat. The frames in which anything has been forced may now be appropriated to other subjects. Chilies and dwarf Capsicums may be grown in the frames. Tender annuals that have been potted may be protected in them, and they will be especially appropriate to the growing Balsams, which should be grown close to the light. The frames may be raised upon bricks at the corners, or on flower-pots, as the Balsams get taller; and when that is done, the sides must be banked up with turf or some other material, to prevent the admission of air. As the Balsam is one of the most beautiful of annuals, and is grown by many persons to fill the greenhouse when all their other plants are turned out, we have attended to its culture, more particularly in the Hothouse and Greenhouse; for after it is raised in a hotbed, and got to a good size, the growth belongs more particularly to those two houses. We may, however, observe that very large specimens can only be grown with heat, light, and moisture in abundance; so that frames and glasses afford the best means; as a succession of heat can be secured by remov-

ing the plants to new hotbeds as the growth advances. They must have their bloom buds picked off as yet.

The Asparagus roots are of no service after they have done throwing up their buds; and, therefore, may be all pulled up to place the bed at liberty.

French Beans that began early have done bearing, and the pots may be turned out, and the soil laid in a heap to sweeten; later ones in bloom and bearing must have as much air as can be given consistently with the heat of the house. Herbs that have been forced may be thrown away after gathering what there is for drying, as those out of doors are ready for use.

The supply of Salads is also not to be continued, except so far as to complete the growth of those in heat or protected.

The frames used for forcing potatoes come in well for pricking out Cauliflowers from the seed-bed, and so helping the kitchen garden a little.

With regard to Melons and Cucumbers, if you want a good supply, make new hotbeds, and set other plants going; for the old ones will have done good service by the time the new ones come into bearing.

As general remarks, you must look well after vermin. Keep all the pots and houses clean and free from decayed vegetation on the ground, as well as the various stages and shelves.

A solitary snail among your fruit will do endless mischief before he is detected, unless you frequently examine the pots above and below. Slugs will often harbour about the bottoms and under the rims of pots, and even under the soil; and if there be any indication of a slug or snail on any one of the plants, the search must not be given up till it is found, however tedious the task may be. It is bad enough to get these enemies out of doors, but among forced fruit it is far more important, because the value of what they destroy is infinitely greater.

STOVE OR HOTHOUSE.

THE plants require the constant supply of a moist atmosphere in summer: frequent syringing whatever is not in bloom, and steaming the house daily, is beneficial to all.

Achimenes, of which there are many varieties, should be examined as to the necessity of shifting to larger pots, and seed may be sown in wide-mouthed pots or pans.

Aschynanthus.—These are too frequently trained on trellises or upon frames as climbing plants,

whereas they ought to be suspended and hang down; they then appear in a natural condition, and their blooms at the ends of all their branches show off to great advantage.

Amaryllis of sorts must be kept growing until the leaves turn yellow, when they may be turned out into the greenhouse and the pots be laid on their sides.

Ardesias are valued for their brilliant red berries, which last all

the year on the plant, and do not fall till the new ones come. The flower is insignificant, but the plant handsome. As this plant keeps growing with a crown of bright green foliage above the flowers and fruit, they cannot be pruned without spoiling the character and beauty of the shrub.

Clerodendrum.—All the sorts of this noble plant are worth cultivating in large establishments, but they must have plenty of pot room and house room. The foliage is large, the head of flowers very branching. See that the pots are large enough, and that the whole of the soil is saturated when they are watered, for partial watering is fatal to this and many other plants.

Climbing plants require great attention. *Allamanda cathartica* wants tying frequently. *Echites* must have the young branches properly directed. *Hoya carnosa* will throw out numerous young shoots, and if not convenient to tie them all, cut some of them off, for the bloom comes on the old flower stalks, which must never be removed.

Euphorbia Jaquinæflora is one of the most striking of plants, and its disposition to run up to a great height can only be checked by frequently pinching out the ends of the shoots. Its brilliant spikes of small scarlet blooms entitle it to a first-rate place. *Euphorbia splendens* is a more singular and better-habited plant, but not so great a favourite. These want frequent shifting and growing fast.

Franciscea.—All the sorts of this plant are worth cultivating with care. *Latifolia* is the most

noble. *Hopeana* is beautifully scented. The others are all gay. When these are in flower no water must reach the blooms, for they spot and spoil in an hour; therefore they must be kept, when in bloom, out of the way of the syringe.

Gardenias should be in the warmest and wettest part of the house. They are all beautiful and highly scented. A moist atmosphere is indispensable. Small plants do best in a common hot-bed such as are made for Cucumbers. The moist heat agrees with them better than an ordinary stove. Cuttings are taken from side shoots before they advance too far; but where the new wood joins the old it will always strike. It is a common practice with the smaller ones to take the tops off before they show their flower buds, and strike them in bottom-heat, when they bloom almost immediately, before they are three inches high. *Gardenia Fortunii* is the largest, *Radicans* the smallest.

Gesneras require the same treatment as *Achimenes*. Sow seed.

Gloxinias are of the same nature and require frequent examination, and sometimes shifting. Seed also may be sown.

Hibiscus.—All these are trees if allowed to grow, but the use of the knife will keep them within moderate bounds. The flowers are all very gaudy. Keep cutting out the young wood, and after blooming shorten the branches to form a reasonable sized shrub.

Ixora coccinea, *alba*, and others, are most beautiful shrubs well grown, but they want great care. If the young wood be not removed

as it comes up from the roots, there is soon a mass of confusion. They ought never to be checked from the time they are merely rooted cuttings, and are apt to get the mealy bug, which, if not instantly destroyed with warm soap-suds, a brush for the corners, and a sponge for the leaves, will spoil the plants.

Passifloras of various kinds should be regulated in their growth, new young shoots preserved, and old wood removed where the young can be substituted.

Rondeletia.—These plants are

weak in their stems, and to show them at exhibitions they are trained over frames and trellises. The proper way to grow them is to get up a single stem, say two feet high, and then grow them as standards; their stems then hang down and flowers come at the end of all the shoots. Look well after vermin, which, if they get among the branches, destroy the bloom.

Cleanliness, heat, moisture, and light, must be provided. All the plants must be examined for vermin, and cleared of them if found. Daily inspect for watering, shifting, and clearing of vermin.

GREENHOUSE.

TOWARDS the end of the month all the plants that have done blooming may be turned out, and pruned for their summer's growth if not pruned before; the vacant shelves may be filled with balsams. The plants which have not bloomed may remain for a time.

Seedling Plants may be potted off in small pots, or three or four placed round the edge of larger ones to grow larger before they are put out singly.

Struck Cuttings may be potted, and those which have grown and filled their pots with root may be shifted into larger ones. All the plants should be examined to see whether a shift is necessary, and to have it if required.

Annuals in Pots want good looking after. The plants in the pots should be reduced according to their habits; very rarely are more than three wanted in a pot. It is only in small things that five

or six would grow well. As annuals are apt to grow fast, and draw if confined, they must be near the light and have plenty of air. The more robust ones may be turned out; but the delicate growers, such as *Rhodanthe Manglesii*, *Clintonia pulchella*, the *Nycterenas*, Balsams, *Linums*, and new subjects generally, are better nursed in the greenhouse.

Orange Trees, *Neriums*, *Camellias*, that have not completed their growth, and subjects generally not yet in bloom, must be carefully watched, watered, shifted, and attended to, and where the pots are already large the surface may be stirred and top-dressed, because it will enable us to postpone the shifting until after blooming.

But generally the greenhouse becomes of less importance as the season advances; nearly everything may be turned out. The whole house may be then devoted to

Balsams, the most showy of all annuals and the gayest of plants, affording great variety, and looking in collection rich and highly effective. A few hints on the management of them will be in place here, because, as some may be in all stages, we must give the whole system up to the time of blooming.

As soon as they begin to grow in single pots they may be brought into the greenhouse, and here they will soon show bloom buds on the centre stem, and no side branches will have grown. Now all these bloom buds must be picked off until the side-shoots have grown and show their buds. The forwardest buds, that would, if left, come out before the others, must be removed until the whole of them all over the plant are about the same size, when the plant may be allowed to flower, which it then will all over alike and all at once. But before it comes to this it will have required several shifts from one pot to another. As soon as a four-inch pot is filled with roots the plant must be shifted to a six-inch one, and when this has filled, remove the plant to an eight, and from that to a ten-inch, for if the shifting be neglected the plant will be spoiled. Balsams may be sown in April, May, and June, to succeed each other. When the greenhouse can be best emptied for a day, it should be washed down and regularly cleaned, and perhaps the best time is when the plants are all turned out and before the Balsams are brought in; but if not done this month the next opportunity will be when the

Balsams are turned out of doors after their prime has gone off, and before the general collection is returned.

The small *Geraniums* are easiest provided for among the pits and frames; for if exposed to the wind in the open air they get turned over or neglected in the watering, for in small pots the wind would dry the soil in a third of the time that it would take to dry the larger plants.

There is no need of fire heat now, unless there happened a long season of wet and the house got damp, in which case the heat should be got up well and the top lights let down, as well as the front lights opened. This will dry the house; but it must not be shut up until all the heat of the house has subsided, as it would tend to draw up whatever plants were in the place.

Seeds of Geraniums, Cinerarias, and other greenhouse plants, may be sown in pots, pans, or boxes. Cuttings of *Fuchsias* and other greenhouse plants may be taken where they offer themselves, that is, where there is young growth two inches long springing from the old wood, but not otherwise.

Fuchsias as they grow require shifting as often as they fill their pots with roots. They must have plenty of light and air and be carefully watered; but this applies equally to all greenhouse plants. The treatment is necessarily similar, the same rule applies to all; but indiscriminate watering would ruin half the plants, so that they must be separately examined whenever watering goes on.

GREENHOUSE PLANTS IN THE GARDEN.

WHEREVER the collection of plants may be placed for the summer, the greatest care should be taken that they do not get their drainage stopped by the washing of the earth down among the crocks, or by the substance on which they stand filling up their holes; for in this case the soil gets soaked, and never dries, it turns sour, rots all the tender roots, which the plant most depends on, and if not detected in time, kills it outright. Therefore, those entrusted to water should examine all before wetting them, and if any look moist while the remainder are comparatively dry, it should be examined and the drainage looked to; for it may not be wrong, the plant may have been in a place so flat that the water cannot escape after it has passed the hole. If it be faulty it must be repaired by turning the ball out, putting new crocks in, all the old removed, and the plant and ball of earth returned. Nor must the plants be neglected in wet weather any more than dry; for many plants throw off the water and scarcely any reaches the pot. Even a few days of showery weather must not put a man off his guard; for although many would think it impossible that exposed plants can require watering, a little examination will soon convince them that some are not much affected by rain. A good deal of the health of plants out of doors depends upon what they stand on. Very hard gravel will let worms through, and they do no good if they get into pots. Ashes are no security when they get saturated. Paving is the best, concrete not much worse; and the health of good plants is worth all the expense of either. The concrete made of new lime and fine gravel will last for many years; and if nicely levelled makes an excellent bottom, useful at all times, but especially in the warmest summer months.

HEATH STRUCTURES.

AIR and shade during the hottest part of the day will be most acceptable to Heaths. They might stand in the open air altogether, but for the certainty of hot baking days, and then days of drenching rain. But the doors and windows of the Heath-house should be open; the wind may blow them about for their especial benefit, but take care of the watering; never allow them to get dry, nor

soak them wet; wait till they want water, and then give it them fully and fairly all through their soil. A slight shade through the few midday hot hours of sunshine will be beneficial.

All the young Heaths coming up from cuttings, in all the stages of early life, will want shifting into pots a size larger, and some specimens may want the same operation, and there is nothing

requires more care. Some specimens in pots, that a man can scarcely lift, may nevertheless want still larger, and when they really want it they must have it or they die. There is no plant that suffers so much in a short time as the Heath. Cuttings just rooted, plants that have advanced a stage, and from that up to large specimens, suffer in every stage alike if left twenty-four hours dry; and too much wet is as dangerous. Heaths are rather impatient of the knife in some stages; but directly they have done blooming, a good deal may be done towards making a plant shapeable; and it is only at these

times when the plant is beginning to grow again that we can take any liberties. When, therefore, a plant has been neglected and become long upon the leg, and bare and ugly, we should use the knife without hesitation, and bring it to something like a decent form whether the specimen would come to our mark or not. We have served many so, without failing, and we have never altogether failed; they have always very much improved. In watering Heaths, water till the liquid runs through; for if it be half done, the root will suffer, and the plant will dwindle.

GERANIUM HOUSE.

WATERING and shading the plants in the Geranium house are the principal operations now. The bloom is general and the house gay.

Hybridizing or fertilizing, to make a cross between two likely varieties, is a delicate but gratifying study, and there is no doubt that if this had been judiciously done we should have had far more beautiful varieties than we now possess. The real object should be to improve the quality, and this can only be done by selecting for the operation those which possess good properties. Thus, say one variety shall have good thick petals and a form above average, say it has a white ground and dark blotches; cross this with one of equal qualities, but a totally different colour. The pollen of the one should be conveyed on a camel's-hair pencil to the pistil of the other, and *vice versa*. Some

are very careful to take away the anthers, that there may be no mixture of their own pollen; but too much importance is attached to this part of the operation. If the pistil is glutinous and the powder is conveyed to it, it either takes at once or not at all. If it takes, it would not affect it at all to smother it in its own pollen afterwards; once taken, it will take no other; but those who are exact will commence by removing the anthers from the flowers to be fertilized before they burst, and before the pistil is ready to receive the farina that is to fertilize it. They then watch the pistil, and directly it is moist and glutinous at the top, they bring the pollen or farina from a bloom of the flower that is to cross it, and apply it to the pistil, to which it instantly adheres, and if it takes, the flower drops in twenty-four hours.

Some of the early forced plants

have by this time lost every bloom. These may be turned out-of-doors into the garden, and if increase is wanted they may be cut down; if seed be required, they must remain without cutting.

Small plants from late cuttings may require a change of pots. Cuttings just struck may require potting off in three-inch pots.

Seedling Geraniums are coming fast into bloom, and as they come they should be rejected immediately unless they indicate something better than we have already got; for if there be no advance there can be no value.

Sow seed early this month if it be not done already, for it matters little how or when it is sown, except so far as it affects the season of bloom; sown now it will be forward enough to bloom about May next year; but many sow later. It should be sown in wide-mouthed pots or pans, and lightly covered.

Be careful to remove dead leaves not only from the plants, but also from the shelves, which should be kept clean, and the floor should be well swept, all decaying vegetation removed, and everything arranged neatly.

THE VINERY.

HERE we have probably Vines in all stages—ripe Grapes just turning, Grapes the size of marbles, and others the size of peas. The same rules cannot apply to all these. The first have done their work and only want gathering as required; the second must be looked over for faulty berries in the way, overlooked at the last thinning. These may still be syringed until a little forwarder. Those as large as marbles should have their last regular thinning; make due allowance for the further swelling, humour the form of the bunch, and when done tie each bunch into its place, that it may hang free; and fasten all the neighbouring shoots, that they may not rub against it. The smallest—those the size of peas—may have their first thinning. They may, perhaps, want to lose at least half the fruit, but you must remove them judiciously, clearing the inside as much as you can, to

keep the surface fruit handsome. All the branches intended to be kept must be so fastened as not to prevent the sun from reaching the fruit, and yet themselves to have the advantage of the sun. In the houses as well as out of doors, get rid of all weak branches, and leave no more fruit than the Vine will carry well, besides ripening its wood. Continue to take away the tendrils as fast as any appear, and pinch back all the lateral branches. Look well to all the fastenings of the fruit-bearing shoots, as they have the weight of the fruit to sustain, which is by no means trifling. In fastening up the fruit you should divide them as well as the shortness of the branches will allow, so that the crop may look even. If you are growing on the rod system, with a single rod up the rafters, you can only have the bunches on either side, and then the single branch which is to take the place

next season must be merely suspended below the fruit. If you are covering the whole of the glass roof, the bunches should be all over the same distance from each other as nearly as possible. In either case, all useless growth must be stopped. Some care must be taken to prevent the intrusion into the Vinery of any plants that will cramp you in the management of your principal crop. A quantity of plants that want much water will throw a damp when it is not wanted; besides, a crowd of plants in a house are as bad as a crowd of persons, —they injure each other.

WINDOW GARDENING.

ALL the care wanted now is watering, giving plenty of air, removing dead leaves and blooms, keeping the surface of the pots clear of weeds and moss, and training such as need support.

If there be a good shower of rain, and you have an opportunity of putting them out to have the benefit of it, do so, and if you cannot do all, do some; otherwise let none be watered till they want it. The surface must be quite dry before they can require moisture below.

If any of your plants throw out strong shoots unlike the rest of the branches, cut them shorter, and allow none to overgrow on one side or another.

If any favourite sends out a side-shoot, and you are anxious to increase your stock, pull it off, or rather push it off, when two inches long; put it into a pot full of earth, water it and cover it with a wine-glass, which will be none the worse if it have no foot. Wipe this glass dry every morning, and when the soil in the pot gets dry, water it. In about three weeks it will be a plant well rooted, when the glass may be taken off for good.

Geraniums in full bloom should be kept in the shade during the heat of the day. If the sun shines hot at the window, bring the plants back into the room, or remove them to a more shady situation.

Hydrangeas will stand the sun well, and may remain in it all the time they are in flower.

Examine all the plants to see if any have filled their pots with roots, and change such as want it into larger ones.

Your Wardian case, if you have any, ought to be well looked after, to see that no dead leaf or any other subject has become mildewed; for that would soon run through all the plants and spoil the whole case. When, therefore, you see a mouldy branch or leaf, open the case and remove every morsel.

Every kind of plant may now be pressed into window service; there is no fear of frost; you cannot do wrong; if the windows be open from morning till night, they will all do well if you only water them when the surface is dry, and keep them out of pans, for the standing water is death to many plants.

J U L Y.

PLEASURE GROUND AND SHRUBBERY.

If any of the shrubs and trees have begun to grow after flowering, remember our directions for pruning, before they make any advance, that you may trim them into a proper form, to make their additional growth bring them to handsome shape.

Continue to mow the grass properly, either by the ordinary or the Vulcan scythe, or the machine, which may be useful with or without a horse. The Lawn should always be kept swept and rolled, so that cutting will be easy. The difference between mowing by the scythe and the machine is, that the scythe must be used before the dew is off the grass, whereas the machine may be used all the time the grass is dry.

The paths must be kept very clean; and if necessary, and you know there is depth enough of gravel, they may be turned and made new with a little labour. The verges must be trimmed, and

the borders forked occasionally and cleaned.

Water the American plants liberally; fairly soak the ground, and remove all the seed-pods the instant the flowers fade. Many of the early flowering sorts are in full growth; and it is of the utmost importance that the supply of moisture be abundant, to secure the completion of the summer's growth and the setting of the flower buds. It is among these choice flowering shrubs that the proper pruning should be attended to before they complete their growth, and it should always be done before they begin it.

If there be any flowers in the beds and borders they should be perennials, because there is no trouble in renewing them; but some of these may require support. Dahlias and Hollyhocks are the most showy subjects in a shrubbery, and perhaps give the longest bloom.

THE FLOWER GARDEN.

Anemones.—The later planted ones must be this month ready to be taken up, and they should be dried altogether in the shade before putting away in their boxes for the winter.

Annals, Hardy.—These may be planted out in the borders for succession either from the seed-bed or from pots, but it is desirable to turn out the ball of earth whole if they have been

grown in pots. Sweet Peas require support, and all other tall-growing slender subjects. Plant out from the pots late sown ones to succeed those now in flower.

Annuals, Tender.—Most of these are now in full bloom in pots or borders. A few, however, still require care and attention. Balsams and Cockscombs will keep growing as long as you find them good pot-room and heat, with regular air and watering. Balsams to be grown large require all their bloom-buds to be taken away before they swell; for as soon as they are allowed to open, the growth of the plant is checked. Both these and Cockscombs want shifting to larger pots as soon as their roots reach the side of the old ones. Thunbergias are climbing annuals, and one plant in a four-inch pot is sufficient. Let them have twigs to climb on, and regulate their shoots that they may climb to the best advantage. *Rhodanthe Manglesii* is also useful in pots, and it only wants room and good soil.

Auriculas must not be forgotten, which is too often the case in summer time. It is important that they should have water in dry weather. If any of them are seeding they must be watched and each pod picked off as it ripens, for if allowed to split, the seed, which is valuable, will be lost; see also that no weeds grow in the pots. Pot off seedlings, round the edges of three-inch pots.

Carnations.—These now require great attention; as the stems rise for flowering, see that there is only one to each plant, and as they advance the buds must be reduced. If they are intended for show, not

more than three buds at the most should be left on. The ties which fasten them to their stakes must be attended to, and occasionally they will want removing or loosening, for if the stem be confined the growth will sometimes break it. As the forward buds swell, and just previous to bursting, a tie should be made, with a bit of bast matting, round each, about half way down, and the calyx should, as soon as it parts at top, be torn down to the tie in all the four divisions; this makes the flower open even instead of bursting all on one side and splitting the pod. Cards are put on the buds, a hole being made in the centre as near the size of the bud as possible, that the petals, as they come down, shall have support and be prevented from hanging down or doubling under. The guard petals, which means the largest row, should be placed properly as they become developed, and laid so as to form a circle. The next sized petals should be laid down so that the centre of each may be over the joins of the lower ones, and the next size should be laid in like manner to hide the joins in the second row. If there be any imperfect florets on the centre they should be taken out, but there should be one or two petals which, with a little twist, will form a crown. Each and every one of the blooms require all this coaxing; for the flower, like the double pink, is a kind of monster, and frequently the petals are all confused; the guard-petals, those which should form the outer row, being often cramped up in the middle of the flower. When these

are exhibited the cards must be removed; for if a flower is not strong enough to hold its form without support, it is worthless, although great efforts have been made by a few dealers to establish the showing on cards for the purpose of forcing the weak, thin petalled varieties on the market; and as it is an idle mode of exhibiting, and makes flowers that cannot sustain their form without support pass the ordeal, the effort has been in some places successful. As the card, however, is a great protection, it has always been allowed to place the cards under them when the judges have made their award. In all cases where florists' flowers are subjects of exhibition the grower will find useful hints in a small volume called "The Properties of Florists' Flowers and Plants," which enables even a novice to tell a good flower, and teaches the shower the points he must aim at to approach perfection.

Chrysanthemums.—These plants are now rapidly advancing; continue to nip off the ends of the shoots till you have induced as many lateral branches as you want to make up a good specimen. If you are growing for single blooms to cut for exhibition, you must keep your plant growing with a single stem, or if the plant be very strong you may have two or three, but they must be ground shoots, and no lateral branches must be allowed. The tops taken from strong well-grown plants will bloom under a foot high if struck directly they are taken off, but they must not be more than two inches long; larger plants may be taken off by layering them

in the pots they are to bloom in. The *Chrysanthemum* is a very untidy growing plant if left to itself; and if watering and shifting, when the pots are full of root, be neglected, they will lose their lower leaves, which will soon change colour and shrivel.

Crocuses.—If the leaves have turned yellow, the bulbs may be taken up and dried in the shade, but not before the foliage has fairly decayed.

Dahlias are growing fast, and the branches must be supported as they advance, for they will not bear their own weight if there be the slightest wind or heavy rain. The most effectual way to do this is to put three or four stakes round them rather sloping outwards, although many content themselves with the centre stake and many ties, with the ordinary bast matting. Young shoots will strike in bottom-heat if you are anxious to propagate any choice variety. You may with advantage mark any extraordinary bloom for seed in such way as to prevent the pod being taken away in trimming the plant, for if seed be not wanted every bloom ought to be cut off directly it has passed its prime. Seedlings may begin to bloom; and as they are planted out much thicker than they ought to stand, pull up every one that is not superior to the old ones as soon as it betrays its inferiority. A man is fortunate if he gets one in twenty worth trying a second time.

Fuchsias that have been cut down by frost, and sent up numerous shoots, must have all the dead wood cut away, and ought to lose all the weak shoots, for

they only confuse the plant and weaken the flowers.

Hepaticas may be parted and planted out in nursery-beds to grow into strength.

Herbaceous Plants embrace a wide field. Campanulas, Delphiniums, Lupins, Phloxes, Columbines, and such like, which are great favourites, may in exposed situations require support.

Hollyhocks.—Keep these well watered if intended for exhibition, and as their stems rise let them be deprived of a portion of their buds. At every leaf there will be two, perhaps three bloom buds; two of these must be removed, and when the remainder is further advanced it may be requisite to remove two out of three of the principal buds, for the great secret of producing large blooms, such as the dealers exhibit, is to give them plenty of room by taking off the larger portion; indeed, ultimately, the buds ought to be four inches apart at least.

Pansies.—Continue to take off side-shoots to strike under a common hand-glass, and plant out in beds any already struck, for by means of these fresh struck plants a succession of bloom may be kept up all the summer. Cut down the old plants that have rambed and are past their prime, unless you are saving seed. In gathering seed remember, that directly the pods stand up they are fit to be taken, but while they point to the ground they are not ready. If you are saving for choice varieties, the best flowers should be marked for seed as well as the best sorts. Seed may be sown in the open ground. Seed-

lings that are large enough may be planted out; those in bloom should be looked over daily, and the worthless ones pulled up and thrown away.

Phloxes.—Seedling plants coming into flower should be examined, and those which are not new or good should be cut down to show that they are not considered worth keeping, and at leisure they may be given away or thrown away, for the worst are tolerable as border flowers; but any that are new in colour may be worth propagating.

Picotees are in all points to be managed like Carnations.

Pinks.—Take off all the bottom shoots and pipe them; that is, cut them up to about three joints, take off the lower leaves, and strike them under a common hand-glass. Look over the seedling bed, and pull up all that are inferior, all that are not double and fine with good laced edges.

Polyanthuses.—If these have not been parted and planted out, it is not too late to do it; and if you have been saving seed, this operation has of course been delayed. The borders in which these and Primroses are growing should be well looked over lest any snails and slugs should be lurking among the leaves. If the seedling Polyanthuses are large enough towards the end of the month, plant them out six inches apart on four-foot beds, first well treading the ground, and levelling it, that the roots may be put in firmly.

Ranunculuses.—As the leaves decay take up the tubers and dry them in the shade, taking care to keep the sorts distinct. They

should be thoroughly dry before they are cleaned and stored away in their bags and boxes.

Roses.—These, if worked on briars, will be constantly subject to the growth of the stock, either side-shoots or suckers from the root. These improper growths should be removed, for if allowed to go on they will overcome the more delicate sorts worked on them. Standard Roses are especially subject to this, and sometimes the stock will shoot close to the bud; and the shoot, growing into the head, is likely to be overlooked.

Stocks.—There is no flower among Annuals more beautiful than the Stock, and few that there is less care bestowed upon in the seeding. As a rule, if you have many single ones among them, throw them all away; if, however, the double preponderate, you may consider it a good strain, and the seed is worth taking some pains with. To this end, the progress of the single flowers should be watched; and as soon as half-a-dozen pods have set, the flowers above them should be picked off, and the side branches should be served the same way as soon as two or three pods have set, and no more shoots ought to be allowed to grow. Some confine the seeds to the centre shoot only, and cut the side branches off close, but it has been found that a few pods may be ripened on the strongest of the side-shoots, the whole vigour of the plant being confined to a few pods of seed; you may please yourself about regulating the colour and keeping them separate.

Tulips.—These, if not already

taken up, should be gathered in directly; the bulbs are too frequently attacked by vermin when allowed to remain in the ground after the foliage has died down. Dry them in the shade before they are stored away for the season.

Violets may be parted and planted, and new plantations of them made; they do best where they get the morning and evening sun only.

As general instructions a few things may be mentioned, although they suggest themselves. Box edgings may be clipped, gravel-walks cleaned, borders hoed and raked; things gone by their prime may be removed, or cut down, or trimmed into neatness. Any grass about the garden should be rolled and mowed, and after a good rain the roller should be run over all the walks; proper supports should be applied to all the tall or weakly-growing plants. The shoots of climbing plants should be regulated and directed where they ought to grow. If it be desirable to prolong the bloom of plants which seed freely, such as Lupins for instance, the pods should be removed instead of being allowed to swell, for it causes fresh growth, and every new shoot gives its spike of bloom. It is the same with free-seeding Roses, branching Larkspurs, Sweet-peas, and other subjects that continue growing. With respect to watering borders, the lesson of the old Dervise—"Begin nothing of which thou hast not well considered the end,"—applies forcibly. Do not commence general watering unless you intend going on with it; and where there is any great quantity of borders and beds it is a con-

sideration. Nothing is more unwise than daily watering; roots will not go down after moisture if it is supplied at top; soak the ground for a foot in depth once a month, and it is better than moderate waterings that do not go down an inch once a day; of course anything fresh planted

must be watered till established, but we have seen a large garden do well that has not had a pint of water but what the rain produced, except watering in newly planted subjects. Weeds must not only be hoed up, but they must all be cleared away, for if rain come, they will root again.

THE VEGETABLE GARDEN.

Artichokes.—As the full-grown heads are removed for the table, the plants should be cut down to near the ground, that the bottom-growth may be encouraged. They make better progress for the next season, and throw up more suckers to be taken off for young plantations. Where the principal crown is wanted fine, all the laterals may be removed before the fruit swells.

Artichokes, Jerusalem.—Merely keep them clear of weeds.

Asparagus.—The beds have now done their duty, and no more should be cut; but the weeds must be cleared from the beds and the plants be allowed to grow. Seedling plants must be cleared; for weeds will soon grow ahead; unless kept completely under, the young plants would be smothered.

Beans, Broad, in various stages want but little attention besides keeping them clear of weeds. The earliest crops may be cleared off the ground as soon as they have done bearing; others are just coming into bearing, and must be stopped. When a piece of beans is cleared off, the stalks should be stacked and dried; for lengths of these, say nine inches, are the best earwig traps that have been discovered, tucked in

among the branches of wall-fruit trees, or among Dahlia plants, in the pots, houses, and frames; in fact, anywhere that earwigs and small caterpillars are troublesome. They have only to be blown out once a day and thousands destroyed. The best thing to blow them into is salt and water.

Beans, Kidney.—Keep these clean, and when in full bloom nip off the tops. Sow more for a late crop; and if the weather be very dry and the earth parched, water the drills well before the beans are put in. We do not recommend soaking the beans.

Beans, Scarlet-runners.—Those who use sticks must see that the plants have plenty of support; but we do not, unless we use them for a blind. We constantly top the shoots from the moment they begin to ramble. In fact, as soon as we see buds at the joints we shorten the tips. With three feet between the rows and good topping the crop is at once regular and enormous; but they want daily gathering when they once come into bearing.

Beetroot must be gone over now and then with the hoe; not only to remove weeds, but to loosen the earth and take away

any plants that have been left to crowd the others.

Borecole or *Kale*.—This is, perhaps, as useful as any winter green, often standing when all beside are cut off or so damaged as to be useless at the proper season, and there is no vegetable more improved in quality. Some of the sorts are fleshy and tender, very much curled, and form a handsome crop. Plants may be pricked out from the seed-bed into a good open space six inches apart, to grow into strength by the time they are to be finally transplanted. The largest may be transplanted at once.

Brocoli.—Plant out some of the strongest plants. Having dug or trenched the ground and dressed it well, let it be trodden hard all over before you begin planting. Take especial care that the plants are firmly pressed by the dibble. We have seen people plant Brocoli without even digging the ground, and an iron crowbar used for a dibble. Moreover, we have seen the plants do well afterwards; but fresh dug ground is the best, though you tread it hard directly. The distance must depend on the sort; but two feet apart for the rows, and eighteen inches apart for the plants, will do for most of them. Sow seed for a succession crop; generally speaking, for mere family use a constant succession can be maintained by one spring sowing only, by constantly pricking out the plants as fast as they grow large enough: there will be months' difference between the first and the last pricked out. The same applies to planting finally; as soon as the plants are large enough to plant, put them out; and it applies to most of the sorts.

Cabbage.—As these are cleared off one piece have the ground dug and cropped again; towards the end of the month you may sow the early sorts, to use as Coleworts, to be planted out thickly and cleared off young. The cabbage stumps, when a piece of ground is cleared, may be planted thickly in any spare part of the garden; but it is not so necessary at this time of year as it is later. If we cannot afford the room to let the stumps remain where they grew and give, as they will, fine sprouts equal to small Cabbages, they are as well thrown away; because when once moved the sprouts are inferior and of little value, while there is abundance of other stuff. Cabbage may be planted out any month in the year that you have plants in good order for removing.

Cabbage, Pickling.—Plant out, if there be any left in the seed-bed.

Cardoons.—Continue to earth these up if you think them worth the trouble; they must be blanched like Celery, only each plant has its heap of soil to itself.

Carrots.—Keep the beds clear of weeds, and if there are any spots where they are too thick, thin them by hand; for nothing spoils a crop more than irregularity in the thickness of the plants. Those who like to run chances of crops a little out of season, may sow a few Early Horn Carrots to come in late in the autumn or early in the winter.

Cauliflowers.—These are now in perfection, only requiring the large leaves to be broken down upon the head to keep it from the sun and wet. Plant out any that are large enough after a good shower of rain; for it is better to defer it

a few days later, than to plant out in hot, dry weather; distances, eighteen inches in the row, and rows two feet apart.

Celery.—On a dry day draw earth to the stems of the Celery already planted; be careful that no earth gets into the heart of the plants. Plant out a full crop. Dig trenches a foot deep, and fifteen or eighteen inches wide. Into these trenches lay a good six inches of well-rotted dung, and dig and mix this with six inches of the bottom turned up well; the trench will then be about six or eight inches deep. In this trench place one row of the strongest plants, carefully removed without damaging the root, from where it was pricked out to grow. Plant them in the centre of the trench, eight inches apart. If more rows are required, they must be four feet apart, that there may be abundant room to earth up the plants.

Coleworts.—Although most people are content now to use the young Cabbage plants as Coleworts—that is, to eat as greens—there are two kinds which are worth cultivating for their peculiar qualities: the one is the Hardy Green, which stands a good deal of hard weather; the other is the Rosetta, which is a Cabbage in miniature, and remarkable for its flavour and tenderness when cooked. This has long been a favourite with the market gardeners at Fulham, and it forms a small heart as compact as the best Cabbage. Seed may be sown this month.

Corn Salad is a most useful addition to Salads in general. Sow this month, and keep it clear of weeds; thin it to three or four inches apart as soon as it is well

up and established; the leaves are picked as it grows.

Cresses—one of the small Salads, sown very thickly at the same time and in the same way as Mustard, Rape, Radish, &c., which are valued for their stems, and are, therefore, drawn up long by shading from the sun. These are sown in every month by those who have to supply much.

Endive.—Sow the seeds the second and fourth week. The green curled sorts are greatly improved, and they are the best to sow. Choose rich ground and sow thinly. Plant out a few of the first sowing if there have been any.

Herbs of all kinds must be cleaned well; for if weeds grow up among them, they are apt to be gathered with them and dried. Towards the end of the month most of them may be picked for drying. Basil, a most important herb in soups and made dishes, should be gathered very clean, and dried in light paper bags, after one day in the sun. Sage, Mint, Thyme, Parsley, (the latter is well worth drying in the shade, though it is seldom done, because there is generally a supply through the year,) Fennel, (another herb seldom dried, but always wanted before any but forced is to be had,) Balm, Horehound, Rosemary, Lavender, Marjoram,—in fact, all the herbs are better if dried while young and vigorous than when in flower.

Leeks.—If these have been sown in rows where they are to remain, let them have their last thinning; they ought not to be less than four nor more than six inches apart, and earth should be drawn

to their sides; for earthing up, like Celery, blanches more of the plant and greatly improves it. If they are intended for planting out, let it be done early this month, unless it has been done already.

Lettuces, the most important of all the Salads, are, or ought to be, in continued succession. Plant out all the sorts and sow once or twice others to succeed. These are so short a time in the ground that they may be planted out between other crops that have not much advanced, without retarding them. The forward ones should be tied round to blanch a larger quantity of the inside leaves.

Nasturtiums should be gathered very young; in which state they make a nice pickle of themselves, and greatly improve all mixed pickles.

Onions.—Sow a few Shallot Onions for winter and spring salads this month and next. A few of the other sorts may be sown, for the chance of their standing the winter; for if they do they are better than the Welsh, which, however, will stand ordinary winters.

Parsnips.—These are now growing fast, and if they are in any spot standing too thick let the extra ones be drawn out, and let them be thoroughly cleared of weeds for the last time; for they will now grow enough to overpower any that may come up.

Peas.—Sow for a successional crop; if Peas be a favourite, you may put in two crops, one at the beginning and one at nearly the end of the month. Look well to

the cleaning and sticking those that are up, and advancing; pick the tops off those in bloom. Any that are past bearing should be cleared off the ground, the space dug up or trenched according to circumstances, and occupied with winter greens of some kind.

Radish.—The sorts to sow now chiefly are, the turnip-rooted red and white, but some few of the long ones may be still sowed.

Salad-herbs, already in part noticed, should be still encouraged; Dandelion and Sorrel among the rest, though the former is a noxious weed when it grows where it is not wanted, Tarragon, Chervil, Purslane, &c.

Spinach.—Sow prickly or winter Spinach towards the end of the month, but not for the main crop, which is better deferred to the next month; but a few rows will form an earlier season, and will come in when the broad-leaved summer Spinach has gone off. This Spinach is picked leaf by leaf; the large ones only being taken, and the others left to grow.

Turnips.—Sow after rain, whatever time of the month it comes; if early, make two sowings, one towards the end of the month. Go over those which have been thinned and are growing, pull them where they are too thick, and weed them all over. If they have been hoed before, there will be places where they have been left too thick.

Hoing and weeding all the crops are necessary operations at all times, and the more frequent the better.

THE ORCHARD AND FRUIT GARDEN.

THE operations in this department are almost a continuance of last month; whatever of the duties pointed out for June have not been performed ought to be done now without the loss of a day.

Apricots, Peaches, Nectarines, and Plums, all wall-fruit, and requiring much the same attendance—the thinning of their fruit to a reasonable crop, and the nailing in of their new wood, are both better done now than later; but should have been begun at least last month and must be completed without delay. Where, however, attention has been paid to the rubbing off useless shoots and the protection of those intended to be retained, there is little to mind beyond looking to the fastenings of those already nailed. See if any be too much confined. If any trees have been neglected till now, there is much to do; first, to cut away the weak and useless shoots, that, if properly treated, would have been rubbed off before they had taken the least nourishment from the tree. Now not only must these all be cut off, but all the rank wood that has grown too vigorously must also be discarded. The useful branches must be carefully nailed in, out of the way of each other, and without shortening.

Cherries want similar treatment.

Currants & Gooseberries.—Few people trouble their heads with these common fruits; and yet there is nothing that repays us better for a little trouble. Both these fruits ought to be gathered green; that is, enough gathered

to thin them; and the remainder would ripen the sooner, and be much finer for the operation. Gooseberries ought not to be thicker than four inches apart. Currants should be thinned enough to give room for the bunches to grow well.

Figs want but little pruning; but where a branch is coming unusually vigorous, cut it away, and the foreright shoots—that is, those which grow outwards—are no use on the tree.

Pears and Apples.—These fruit-trees do well with thinning; the whole remaining crop is benefited by reducing the number to be ripened. Espalier trees should be examined, and such branches as have been omitted to be removed at the proper time, and that are useless, should be taken off now; also, the crop should be carefully thinned, if the tree be too heavily laden, and the branches to be retained should be fastened into their places. In fact, espaliers require the same treatment as wall-trees; the only difference being, that one is grown flat on wood trellis, or frames, while the other is nailed to bricks and mortar. In fastening the branches to their places, they must be laid on the full length, and not shortened.

Raspberries.—As suckers are now pushing on rapidly it is desirable to remove some of the weakest, by digging down to them with a spud and taking them off. This, however, is not to be done when you want all the plants you can get. See that the suckers are

not damaged in gathering the fruit; for on them we rely for the next year's plants, as the old ones die down to the ground.

In all kinds of fruit intended to be kept fine, and allowed to ripen, throw nets over the trees and bushes, if practicable. In Gooseberry and Currant bushes it can be easily done. On wall-trees, the operation is simple enough; but standard Cherries give some trouble, if it can be done at all. It is the facility for protecting, that renders wall-fruit trees and espaliers desirable for all choice fruit; for even Pears that ripen on the trees, are subject to various depredations, and pay well for a little protection. We cannot repeat too often our injunction to look after vermin, and if possible destroy them by means of any contrivance you can think of. Bean-stalks, which are hollow, cut into foot-lengths, or less, tucked in among the branches of trees, or laid at their roots, attract earwigs, ants, and small caterpillars, and blown out once a day into salt and water very soon clear off vast numbers.

Strawberries.—Keep the plants clean; and if the weather be very hot you may choose between size and flavour. Watering will increase the size, and favour the bearing; but there is no comparison between the richness of the less excited fruit.

If you do not require young plants, always keep removing the runners; it helps the fruit considerably.

Vines should be cleared of all superfluous wood; all the laterals should be taken away, and there will be many of these; for they will come at every joint. See, also, that the bearing branches be well fastened, and if there be anything like a general crop, it will be better to allow only one bunch to each to swell; but take off the ends of the shoots one joint beyond the fruit, and fasten up the end well; for it will have to bear the bunch of grapes; and, in fastening it, give it the best place that it will reach, by inclining the branch upwards or downwards to be nailed. Continue all the month to rub off all the fresh shoots, and to fasten those branches which were selected as useful, that the wind may not break them. In these operations, and especially in deciding on the bunches to be left, bear in mind that the less the vine has to do the better it will be done.

Look for vermin. You cannot be too careful in examining the walls for snails; and it is well to trap all the wasps with bottles half-filled with beer and sugar before the fruit is tempting; but nothing short of covering with gauze or slight net will secure the fruit when ripening.

PITS AND FRAMES.

THE various uses to which these are put now renders a notice of the business somewhat rambling. In the first place, all the young plants that require occasional shading are put into cold frames, for the convenience of covering when required, and of keeping

them all together; the convenience of watering too, and the facility with which they can be covered up in heavy rains, are other inducements for transferring even young hardy plants to their protection. In the next place, they afford a nice shelter for seedling plants pricked out in pans or pots, to grow into strength before they are planted out, or potted off, as the case may be. Another use to which frames are appropriated in summer-time, is to stow away newly grafted or budded subjects that want no extra heat, and do not very well flourish exposed to rain and wind. A frame may be set aside to save seeds of any particular subject in;—for instance, half-a-dozen Verbenas, or as many Pansies or Petunias, or any other favourites; or as many frames as there are families may be appropriated. The value of seed so saved from a select few of the best that can be found can only be appreciated by those who have seen the effect in new and im-

proved varieties. Now the frame offers the only protection against the injury of the seed by the visits of bees from other and inferior productions; by simply nailing a piece of net over the frame, all intruders are stopped out, and whatever you may cross, or may be crossed from the good varieties you are working on, you are at least certain that nothing inferior has interfered with the seed you have saved. But there are at present no legitimate tenants, such as will be placed in the frames in the autumn. In fact, the pits and frames have now, so far as their own plants go, a long vacation, in which they are used for anything, everything, or nothing, just as it happens. Some were made into hotbeds, to help out the forcing business; some have been the hotbeds for raising annuals, others for growing Cucumbers and Melons; but there is no positive business for pits and frames unless you make it.

THE FORCING GROUND, ETC.

THE principal objects here now in the fruit way are Grapes, Pines, and Figs; and the attention required may be gathered from our previous directions. Some late Peaches may be left on the trees, if any late ones were forced; but as this is not very judicious, we can hardly expect the trouble to be thrown away upon them.

Egg-plants, Capsicums, Chilies, and Peppers generally may be planted singly into four-inch pots, and be kept in the houses.

Melons and Cucumbers must have their bottom-heat kept up well, by new hot linings, when the temperature declines, and air must be liberally supplied. The regulation of the shoots, the thinning of the fruit, (for not more than three should be allowed to swell on a vine at the same time,) and the general management of the last two months, must be continued.

Tomatos may be turned out between the fruit-trees on a south wall; they do not do well in pots.

The plants want firm nailing to a wall, and have a great weight to bear. When the fruit shows, the plants should be topped at all the branches, and the ends left made fast with nails and shreds; cut them back well. Three or four bunches of fruit are enough for the strongest plants. Chilies will bear plenty of heat; so will Capsicums, and should be kept in the houses. They should be gathered as soon as they change colour; but only such fruit as do change colour; the others require more ripening. Those who have only a stove, do all these things, and generally all the forcing they require, in that building, except, perhaps, the Cucumbers and Melons.

Vines want attention to their young growth, which must be removed as shoots come out; according to the state of the fruit you must steam or syringe, or omit the latter, as circumstances dictate, looking back for directions that need not be repeated here.

Vines and *Figs*, in pots, must be very carefully attended to; for they must not be allowed to get too dry, and all kinds of fruit-trees in pots must be watered freely until their new wood for bearing the next season has done growing, when they will not dry nearly so soon. One of the great disadvantages to which plants which have done bearing are subjected, is neglect; the interest, as it were, ceases, and too often the attention also. This should not be; there is not a more critical period in the whole year than that in which plants complete their shoots of the year, upon which the next season's crop depends entirely.

They want plenty of air, and a good supply of moisture, until done growing; and then they should be plunged out of doors where they escape the two or three hottest hours.

THE PINERY.

Pines.—We are somewhat wedded to the Hamiltonian system, as it has been called, for gentlemen's establishments, that is, where the fruit is not wanted in all at once. We have already recommended that when a fruit was cut, instead of taking off the suckers and potting them, to root and make succession plants, one or even two suckers should be left on the plant, and the earth made good up to their base, as directed by Mr. Hamilton, in a treatise written some years. The advantage of this is, that the sucker grows much faster on the plant, and frequently fruits in eight or nine months, nearly as fine as the old one, and thus a good deal of time is saved. The earthing up to the base of the sucker enables it to strike root, while deriving more than its usual supply from the plant itself, which has no longer its leading fruit to sustain. All the suckers above one or two must be taken off and laid by a day or two, till the broken end dries a little; then pot them into four-inch pots of rich earth, that is to say, loam and well-rotted dung, in the proportion of one-third dung to two-thirds loam, and plunge them in the tan up to their rims, or they may be plunged in a common hotbed. *Pines*, like any other plants intended to grow fast, must be shifted from one sized pot to another and larger as soon as

their roots fill the pots they are in; but we are no friends to general shifting in private gardens. As soon as a plant is ready for shifting let it be done, and not wait till others are ready; because they are not all wanted in one season; on the contrary, they cannot, in a gentleman's establishment, come out of season. The crowns of Pine-apples are to be rooted in the same way, being first laid by till the bottom is perfectly dried, and then the bottom leaves taken off as high up as the plant is to be sunk in the soil. Give air in the pit during the hottest period of the day.

FLOWERS.

In the flower department forcing is of course all over; but the plants which have been forced must, after completing their new growth, be gradually inured to the open air, to fairly ripen their wood, and then be preserved at rest until the time comes round again for forcing them.

The Balsams and Cockscombs must be shifted as they fill their pots with roots, and the Balsams may be put out of doors if their room be wanted, and those still

kept in houses or pits must be placed near the glass; and when they are put out of doors they must be where they have all the benefit of the morning and evening, but not the mid-day sun. If you are saving seed, let the plants have the benefit of all the weather; but save seed from none but extreme double flowers. Balsams, if allowed to grow their own way and bloom, will flower up the middle stem before the side branches make any great progress; but all the first buds should be removed to make handsome plants; and when the side branches have grown out well, and begun to show their flower-buds, you may cease interfering with those on the main stem; but before the plants are allowed to open their flowers the buds all over should be of an equal size. Cockscombs bear any amount of heat and light, strength of soil, and room. They should, therefore, be near the glass, the temperature raised to 80°; water supplied whenever they get dry, air given in the middle of the day, when the sun is warmest, because the air can be given without lowering the temperature to less than 80°.

STOVE OR HOTHOUSE.

WE are now presuming you have a collection of the popular stove plants. Here may be growing a number of plants, not strictly belonging to it, but which, nevertheless, are put there to hasten their growth. Heat and moisture will do anything. It will hasten the blooming of a

plant, as well as the growth, and consequently is the receptacle for everything new, because we are impatient to see what it will turn out, or if we know that we are desirous of being first to show it. All rooted cuttings must be potted. Those previously potted may, on examination, be found

wanting room, and, consequently, shifting. Plants growing up into specimens must be examined to see how the roots are growing, and, if found to have filled the present pots, must be transferred to larger ones. The plants, all through the house, must be examined daily, to see if they want water, and must have it if they do. Climbing plants may have rambed and want adjusting, or if not adjusting, at least directing, for none of the leading shoots must be allowed to ramble or to cling to other plants, or to grow away from their proper place. All the plants must be examined for vermin; and if any be found, instant remedies must be applied; for the mealy bug, soapsuds, warm, and a brush to reach them in their fastnesses—the corners. If there be green fly, the fumigation with tobacco is the only remedy. If the leaves are attacked with honey-dew or fungus, they must be washed carefully with the soapsuds and a sponge. A few of the plants may be worth a separate notice; but generally the stove inmates may be treated alike.

Abutilon.—This, though a greenhouse plant, is one of those subjects which thrive a good deal better in the stove; and we are not inclined to admit that anything is *bonâ fide* a greenhouse plant that does not do as well there as anywhere. These may be pruned; may be cut down to the pot; but they come again as strong as ever; and cuttings from the top taken this month will bloom six inches high. *Abutilon Venosum* is much larger than *Striatum*, and so much superior that we have thrown the latter away, because in every re-

spect inferior, though of the same character.

Achimenes.—These are showy objects just now, and they continue so for a long time. As there are several in a pot, they present a mass of brilliant flowers. Frequently smoke to keep off the fly, and syringe up to the time of flowering; but heat and steam is the best remedy for their greatest enemy, the thrip. Rarely do we see these beautiful flowers but they are speckled with white, simply because the thrip eats off the coloured surface.

Eschinanthus.—These plants are rarely grown or shown as they ought to be. They are trailing plants, but are treated as climbers. Instead of tying them up to sticks, or growing them on a frame, they ought to be grown in suspended pots, and hung down all round, in which position the flowers show themselves to great advantage. Yet it is difficult to make people attend to these trifles, which, however, make all the difference between a handsome plant and an ugly one.

Amaryllis.—We have already noticed that those who have a collection of these beautiful subjects have always some in bloom, some past it, and others not yet throwing up their stems. Those which have passed their bloom must be liberally supplied with water, and be in the warmest part of the stove, to make the full growth of their foliage; and this must be continued till the leaves turn yellow: when no more water is given, they are put in the coolest part of the stove, and may be laid upon their side. Those in flower may be placed to the best

advantage, perhaps sent up to the conservatory. Those which have not yet started are not to be hurried.

Camellia.—This is by no means a stove-plant. But plants are frequently put in the stove to start them into vigorous growth, especially new ones, that are mostly sent out very small. It is quite clear that two growths can be made in one year. Plants that have been cut down are better in the hothouse till they break from the old wood and afterwards, for the plants grow much faster for the heat and moisture.

Climbing Plants, such as *Echites*, *Passifloras*, *Ipomeas*, *Rhynchospermums*, *Allamandas*, &c., must be duly attended to, and their young shoots properly directed, to prevent their clinging to wrong places, or tangling one another.

Gesneras and *Gloxinias*.—Although there is but little similarity in the habits of these plants, they want precisely the same treatment—heat and moisture—till the bloom comes, and then cooler treatment; for the blooms otherwise soon fade. They must be looked to occasionally, lest they want shifting, and must be frequently watered, because when coming up to bloom they absorb a good deal. Some of the taller *Gesneras* may require a slight support.

Hibiscus.—These are very large plants for moderate-sized stoves, and cannot annually be pruned in too hard, so that there be any wood at all left to break.

Hibiscus Manyetta.—This extending flower is only valued for its size. It is only a one-day bloom; but a succession of flowers lasts a long time. The flower is nine inches across, nankeen, with a black eye; this may be cut down once a year; it is evidently a perennial, but blooms the first year from seed. It now requires plenty of pot room, and a liberal supply of water.

Ixoras must be minutely examined among the little stems, which will support the large heads of scarlet, white, or orange flowers; for if the mealy bug be present, it must be expelled, as the only way to save the head of bloom. In the young state it is difficult to dislodge the pest; but we must in such case persevere, for if left unmolested, nothing can save the flower.

The Stove business differs very little from month to month; you must keep the heat down, when the sun is powerful, by opening the house at the top, and giving air; but there is no danger of getting too cold now; 75° or 80° by day, 60° or 65° by night.

CONSERVATORY.

THERE is little to do here but command the best things from all the departments, and make the best show we can. There is no lack of subjects,—Dahlias in pots, Annuals in pots, Balsams, Cockscombs, Fuchsias, Roses, in great

abundance, form no small attraction when made the best of.

Climbers up the pillars or rafters, or trained in festoons, must be regulated a little, or they will be hanging about where they are not wanted; and the dead flowers

must be now and then trimmed off most of the blooming plants.

The borders must be constantly dug, or stirred up, and raked smooth. Any pot-plants that have been plunged, and gone by their prime, must be got up, and be replaced by others in good order. A general turn out of all the plants past bloom, and which have perfected their wood, might take place with advantage, and other subjects brought in their places. The stove will supply Gesneras, Achimenes, Rhynchospermums, Strelitzias, Hibiscus, Ixoras, and many other subjects,

well calculated to set off the place; and if there have been any pot-culture of annuals, there are many admirably adapted to plunge in the borders; nor must fragrance be neglected. Stocks, Mignonette, Pinks, and Heliotropes, supply this in abundance; while the Rose contributes, in no small degree, to perfume the principal house in the establishment. Attend especially to watering, shading, and giving air, for all are essential, and two or three days' neglect would be soon apparent in the deterioration of things necessarily a good way from the glass.

GREENHOUSE.

As all the plants may be safely turned out, the only ones to keep in will be those which have still flower upon them, and we may desire to see still in their places. As the shelves would be comparatively empty, there is nothing to fill them up that make a better show than Balsams. The most forward of these, which by this time are in eight-inch pots, may be placed on the shelves, not too closely, for they want air, light, mild temperature, and water; and, to prolong the bloom, they ought to be shaded during three or four hours of the hottest sun. If, however, they are for seed instead of beauty, the sun will assist that object though it shorten the bloom. Providing therefore, by these means, to fill up the empty shelves, you may turn out everything that has ceased to be handsome. Orange and Lemon trees, in fruit and flower, will most likely be trans-

ferred to the Conservatory; but whether there or in the Greenhouse, the fruit should be thinned to a reasonable quantity; and if the trees continue blooming, you must on no account have too many. Some growers pick off all the flowers when a season of fruit is set, but the fragrance alone ought to save the flowers; it is a good reason for lessening the number of fruit to remain on. The top dressing of this family of plants is generally rendered necessary by the fact, that they cannot be always conveniently shifted to larger tubs or pots, and therefore extra nourishment is required. Top dressing is best done with thoroughly decomposed dung, that is, dung rotted into mould. The earth should be stirred as low down as it can be done without disturbing the fibres, and the loose soil taken out; then the addition of the fresh rich soil will

be of the greatest benefit, washing down among the roots every time the plants are watered. Small Orange-trees, that have filled their pots with roots, should be at once exchanged into larger ones.

Fuchsias, which bloom pretty nearly all the year, are among the plants which still claim their place in the Greenhouse, and only a portion get turned out with other plants. Many of the delicate kinds get discoloured in the open air,—the wind and sun do not improve the flowers; and besides, as we before observed with regard to Orange trees and *Nerium Oleanders*, they retain their beauty, and remain in the Greenhouse, or are sent to the Conservatory. They are continually growing and flowering, and take a large share of water. But as many of the smaller plants are among the general collection, our remarks on the out-of-door plants apply equally to them. Those in the Greenhouse, perhaps intended for exhibition, must be shaded from the hottest sun, for it tinges the white sepals to a dingy blush colour; yet they must not be too much darkened, nor too long shaded, or they will draw up weakly, and require supports, which are an abomination. As we treat of *Geraniums* separately, and they have a house of their own, we have nothing to say of them among the Greenhouse-plants save this: that if any of them are still in flower they are most likely in the Conservatory, and that before the month is out they will be cut down to make larger plants for next year.

Nerium Oleander is another plant that has not yet lost all its beauty, and therefore must stay

in the Greenhouse, or be sent to the Conservatory. They will not bloom freely out of doors, nor where there is any great draught of air, for the buds get set and will not open. These are splendid ornaments when well flowered, but they must not be placed where any opening will let in the wind; they cannot have too much air, but it must be still. These may be top-dressed, if they have not been lately shifted and are not to be changed. They want looking after with regard to watering, and especially those plants which have been some time without a shift, for the ball is hard, and water does not go freely through it. Indeed, it is always dangerous to let a good plant get pot-bound; an hour's soaking will scarcely penetrate all the earth where it has been allowed to harden. There is no difficulty in shifting moderate-sized plants; but the labour of changing the pot or tub of a large one deters people from doing it as soon as they ought, and when it is done, the change is often fatal. The Botany Bay plants, Chinese Azaleas, Camellias, *Aca-cias*, and other Greenhouse-plants now out of doors, require as much attention as they did in the house, though they rarely get it. The pots should be occasionally lifted up from the ground; the drain-holes examined to see that they are not filled up. The weeds, which will grow rapidly when they once spring up, will soon deprive the plant of its proper nourishment, if not speedily pulled up. The healthiest plants will quickly decline if the drainage be bad, or if watering be neglected; therefore, all the plants should be examined,

and especially to see if they require larger pots; though, if this was properly done when they were first removed, they will go over to the period when they are put back into their houses. All the struck cuttings of Greenhouse-plants should be potted off. All the small plants that have been potted off some time will require shifting to larger pots, for young plants grow rapidly, and soon fill their pots with roots, and then stand

comparatively still; so that growing plants are constantly wanting additional room, and it applies as much to one plant as another.

During the time that the general turn out takes place, the Greenhouse should be thoroughly cleaned out, and, if necessary, the back-wall lime-whitened, and the painted posts re-done, for there will be no time when it can be done so conveniently as when the plants are turned out for the summer.

GERANIUM HOUSE.

THIS month, the greater part of the Geraniums may be cut in and carefully pruned into a handsome shaped skeleton, calculated to break into a well-shaped plant. All the specimen-plants are pruned, so that they are increased in size the next season; but small or large, this is the time to prune all the blooming plants that are past flowering, except such as are intended for seed; these must be left until the seeds are ripe, or so nearly ripe, as to ripen on their stalk after gathering. The Geraniums, when pruned, ought to be of a form projecting alike all round, as nearly as possible, but there is always something of a chance about how they break. In pruning, however, remove all the weak wood, and any that crosses in the middle; in fact, see that the whole plant is so pruned as not to get into confusion. The plant may then be set out of doors, be watered well in dry weather, and there remain till the new growth commences, when they may all be shook out to get

rid of the sour soil that they have been growing in, and, after trimming off the useless portion of the roots, be carefully potted in smaller pots of good soil, say good loam, from rotted turves, two-thirds, and dung rotted into mould, one-third; if this be too stiff, a little clean sand or sandy-peat, just enough to open the pores a little: when re-potted, let them be shut up in the house, and well-watered, and here they may remain till they get established. Now, with some plants, all this pruning, starting, and re-potting may have to be done this month, but the greater part of the work belongs to August. All the prunings may be prepared by cutting them up as small as you please, so that each cutting has one point below, and one (or more) above ground. All these may be stuck in a common border, under an ordinary hand-glass, where they will require watering, and an hour or two's shading in the hottest part of the day; or if in a shady border, they will even strike without the

hand-glass; as a large cutting will strike as readily as a small one, there is no occasion to make such diminutive ones as two joints only, unless a quantity of plants be wanted. As seedlings do not flower all at once, most likely new ones will be coming out all through this month; but as they prove good, put them on one side to propagate; on the other hand, if they give no new and good promise, destroy them or get rid of them. Seedlings, of the present season, are large enough to prick out round the edge of a four-inch pot, say three or four in each; it is far better than potting them singly in small pots, for the greater body of soil does not dry up so soon, they do not require the constant watching, and they grow much faster and stronger in consequence of their contact with the side of the pot. If any seedlings have been al-

ready pricked out thus, and have grown into each other or nearly so, they may be potted singly into four-inch pots, and when well-established, they may be placed out-of-doors to rough it with the other plants, for it will keep them close and dwarf, instead of drawing them up as the house would. The bottom on which they stand should be tile, or slate, or paving of some kind, or, which is perhaps the best of all, concrete; for if worms get into the pot they do a good deal of mischief, and slugs will be found harbouring in any loose ground. Seed may be sown at the beginning of this month, if not sown before, and they will flower the next spring or a little later; but most prefer to have the seedlings strong, that they may begin to propagate a good one directly they see it flower,—and to be very strong they must be begun earlier.

WINDOW GARDENING.

THE windows now are in all their glory, for there is as much choice of plants as can be needed. The Scarlet Geranium is in first-rate order, and nothing is more showy; Stocks are in perfection; Balsams coming into bloom; a goodly sprinkle of *Ericas*; annuals of nearly all kinds are in flower, or coming rapidly to it; *Mignonette* supplies its fragrance, and everything conduces to the enjoyment that window gardening affords. But there is a sort of gardening that disdains to call in the aid of new plants. The tenants of the house and windows, are, in many

places, old favourites. The Ivy-leaf Geranium, which has occupied its trellis in a goodly sized pot for years; the Oak-leaf Geranium, which is valued for its foliage, has almost served its apprenticeship; the old Horse-shoe Geranium, grown large enough to form a window blind,—are favourites that must not be displaced; and, as may have been seen in many a cottage window, seem healthy and vigorous as the youngest nursery plants. Then there is another class of plants which are general favourites, because they are unvarying in their appearance for

long periods. The various Aloes, of which the Partridge-breasted, as old ladies call it, is at the head. Other succulents, which want but little water, and scarcely any attention, are common as the household furniture, in many places; nor can we omit the Myrtle, an old-fashioned, but nevertheless elegant plant—a general favourite wherever it is cultivated. All these things want merely to be watered now and then when too dry, and then allowed to drain. Those who are growing Nasturtiums or Convolvulus Major, as a blind for their windows, will do well to water freely, but not to let the pots stand in saucers or pans. These plants soon cover a large space if well trained on trellises or bushy twigs. Boxes of Mignonette, if too crowded, which is a common fault, should be thinned by pulling up some of the plants altogether; but it is better done sooner. Annuals now declining bloom should be discarded, and their room occupied with something better. The leaves of all the plants will be better for a washing; large leaves can be sponged; but if you have the convenience for putting out the plants in a shower, they will reap great benefit from it. The earth in the pots should

be stirred on the surface when dry; and we need hardly add, that every weed should be pulled up directly it appears; for plants in pots have none too much nourishment, and soon feel the loss, if weeds are allowed to participate with them. If you have any good soil to replace it, the plants would be all the better, if after stirring the surface the loose were thrown out, and fresh earth put in its place. The pots should, however, be examined, and, if filled with roots, larger pots should be obtained, and the plants shifted from the smaller to the larger, and the fresh earth carefully used to fill up, shaking and poking it down without tearing any of the roots. After this, they must be well-watered, if there be no more given for a week; but the chances are, that, if the weather prove hot, they will want it in a day or two; still they are not to be watered until the surface be dry, nor ought any other potted plant. Wardian cases should be examined, and the dead or decaying plants removed, and others put in their places. In the choice of these be particular. All the succulents do well in them; some only of the Ferns. Slow-growing plants are the best adapted generally.

AUGUST.

PLEASURE GROUND AND SHRUBBERY.

WHATEVER weeds may be located among the grass of a Lawn will now be troublesome, if not got rid of. The Daisy, Buttercup, and Dandelion are too often conspicuous; the former is almost past cure; and the daisy-rake may be wanted every two or three days, but the other pests should be extirpated if possible; a small spud will be the best implement, and should be thrust down low enough to get up the root; but, at this period of the year, many will bleed to death even if a bit of the root be left; still it is better to loosen it low enough to get it all out. Mowing must be frequently done, or the grass will be uneven, and when cut it will be a bad colour. Before mowing it should be swept and rolled; a bush-harrow is the best implement for sweeping.

The edges or verges of the Lawn, and all the beds and borders cut upon it, must be trimmed, or they will be ragged, and spoil the appearance altogether.

The *Shrubs* and *Trees* now in full growth and making rapid advances, must be watched; and branches that are growing out of

form, or taking up the growth stronger than the rest, must be shortened, or, at least, checked by pinching off the points. The American plants must be liberally watered; for the critical period, which settles whether they are to bloom or not the next year, is at hand. If their growth is checked for want of moisture, they will form no bloom-buds, and both *Rhododendrons* and *Azaleas* must be deprived of all their seed-pods; for if they are allowed to perfect themselves, the bloom will be very partial the next season. Honey-suckles inclined to throw out long shoots must be cut back if they are to remain as shrubs, or trained up if they are to climb.

We need hardly repeat, that if mowing is to be done with the scythe, it should be begun by daylight and finished before the grass dries; on the other hand, if mowed by machine, it should be done when the grass is dry. The sweeping and clearing off the grass after cutting should be done as soon as possible, as a few hours in the ordinary weather of this month would turn all the space under it yellow.

THE FLOWER GARDEN.

Alpines, if exposed to the sun this month, and the weather continues dry, must be refreshed with water; many of the plants will bear dividing. Look well also after seeds, and keep the whole clear of weeds. In speaking or writing of Alpine plants in the Flower Garden, we mean only such as are worth a place in it; some hundreds of Alpine plants may be found in botanical collections, but which, in the eye of the flower gardener, would be only so many weeds.

Annuals.—The principal aim of the gardener, who takes a pride in these, is to have a succession, to take up the flowering when the earliest blooming kinds decline; many will bear planting out now. Stocks, Asters, Marigolds, Zinnias, which have been sown, and pricked out for the purpose, or cultivated in pots to turn out, may now be made to occupy the spaces made vacant by removing those which have done flowering. Even tender annuals, that have been grown in pots, may be turned out now, to enrich the borders as others go off.

Auriculas grown in the open beds and borders may be divided, and the separated parts placed in stove-beds, or, if well rooted, placed at once where they are to bloom; the sorts usually grown in the open ground are as hardy as a Primrose.

Azaleas, if there be any in the beds or borders, require very liberal watering; all the seed-pods must be removed; any new shoots wan-

dering too far, or growing away, as it were, from the general style of the plant, must be stopped.

Borders.—The gardener must pay great attention to prevent these becoming shabby; many perennials have done flowering, and look dull enough; these should be cut down, and well cleared of dead wood, decaying leaves, and other subjects should be placed as close to them as they will grow, that there may be as little distance as possible between blooming plants. The advantage of pot-culture of annuals is now felt in earnest. Balsams in flower will be gay for a month or six weeks, and will be improved rather than checked by turning out of their pots. Remove any annuals that have passed their prime, to make way for these more lively subjects,—and common annuals grown up for that especial purpose will assist; therefore, first clear the way by removing everything dull and ugly; hoe, and otherwise weed the whole surface, that you may see what blanks want filling up, and put in requisition everything likely to enliven the borders and beds. Scarlet and fancy Geraniums, Verbenas, Petunias, Fuchsias, and any other flowering subjects, must be pressed into service to keep up the brilliancy of the scene.

Carnations and *Picotees*.—Those intended for propagation must all be layered early this month: the operation is so simple that it hardly need be repeated. All cultivators agree that the third joint from the top is the best to

root, though the fourth is often chosen: the greatest care must be taken in slitting the joint, by inserting the knife half an inch below the joint, and sloping the cut till it is nearly half-way in as the knife passes the joint, and then cutting off the piece below the joint; the bending of the shoot down opens the slit, and the end naturally turns up a little. The knife must never go more than half way in, and the shoot may be slit half an inch higher than the joint, which will root freely if pegged down half an inch below the surface; but the earth in the pot must be stirred, and some sand mixed with the portion that the shoots are pegged down in, because it is favourable to the growth of the under-fibres; stripping off all the leaves below the notch is judicious, but the plan of cropping the tops is radically bad. They may not crowd the surface of the soil so much when cropped, but they never make such good plants; when all the shoots that are long enough are layered, those which are too short may be piped like pinks.

Chrysanthemums may be still checked in their upward growth by pinching out the tops, and cuttings may still be struck for dwarf plants, and late flowers. The plants intended for cut flowers must go on growing, however long and ugly—for ugly enough they are; and they are the better for being fastened to a south wall; first, because it is very easy to protect them from frost when it comes—"and come it will for a' that"—and secondly, because it is easy work to fasten a shade, for these flowers will not stand much

sun after they get pretty forward. Those who want very dwarf plants may bend down the tops, and layer them after they show their buds; and even in the open air they will strike, and may be cut from the parent plant, to flower at the usual time; but they should be layered in pots. It is desirable to moisten the plants intended for specimens with liquid manure—a good spadeful of rotten dung in six gallons of water,—and let them have this every third watering, as soon as they show their buds; but this will only occur with the very early ones.

Dahlias are coming into bloom, and the greatest care is required to secure the side-branches, for their own weight will break them in heavy rains, and a side-wind would snap them off like glass. The pruning of *Dahlias* is carried by some people to great excess; the weak side-shoots should be taken off altogether; but when it is recollected that the *Dahlia* takes as much nourishment through its leaves as from its root, there should be some consideration before they are made skeletons. When a flower bids fair for a show, the growth beyond it should be stopped, and the buds in the immediate neighbourhood, that is, on the same branch, should be picked off; and if we want the plants to look handsome in a garden, they should be stopped before they get too tall, and the side-shoots ought also to be stopped judiciously, to keep the plant in form, and let the flowers be at the terminus. It is a mistaken notion that stripping them, as is the fashion, assists the flower. Young side-shoots of favourite sorts will strike freely in bottom-heat.

Fuchsias in the borders, beds, or in groups, may require a stick for the middle stem, but nothing more. The side-branches should be allowed to grow their own way.

Hollyhocks require to be deprived of two buds out of three that first appear at every joint. In almost every variety there are one large and two small ones: when the plant is allowed to grow and bloom its own way, it continues much longer in flower, because the small buds come out and form a second season before the top of the plant has done flowering. Again, for showing, and for a grand display in the garden, the plants ought all to be topped. Shorten them to five feet, or six at the most; this strengthens the flowers. When the small buds are removed, there must be a portion of the large buds also taken away, because, unless they are from four to six inches apart, on all sides of the plant, there is not room for the flowers to grow in their natural form, and properly develop their beauties. Liquid manure at this time will help them a good deal, but we do not approve of mulching — which is surrounding the plants with dung: it only harbours the vermin, keeps the fibres of the plants close to the surface; after which a few hours' neglect of the plants, in respect to watering, would cause them to fail altogether. Let them in this respect be open to the rains; abandon the system of mulching; let the plant from the first dive down after moisture, and only give them liquid manure when they want it. If any of the plants throw up more than one stem, cut the extra ones off. Nevertheless, you are to consider

whether you prefer the additional stems, and all the flowers smaller, or one noble stem and large flowers. A good deal depends on the situation.

Honeysuckles climbing on walls, or house-fronts, or even arbours or trellises, must have their growing shoots, directed where they are to go; as when they hang about long together, or grow where they are not wanted, the moving not only checks them, but they are a long time adapting themselves to the change. If you have any about the borders, as bushes or standards, all the new growth must be cut back to one or two eyes, unless you wish the heads to grow larger, when more may be left on, according to taste.

Jasmines, in like manner, where trained, must have the young wood regulated, and the fastenings of the old wood looked to; for as the tree grows the weight on the fastenings increases much.

Pansies.—Whether they are in beds or borders, the hot weather takes the beauty off the old plants; but the effect may be greatly counteracted by copious evening waterings, and cutting back the long straggling shoots. A succession of plants should be secured by constantly taking off side-shoots that come up from the root, many of which may be detached with roots, and planting them in nursery-beds; those which come off without roots may be struck under a hand-glass, in a shady border. Plants from the nursery-beds may be planted where they are to bloom. Gather the seed of Pansies as it ripens; so long as the pod grows towards the earth it is unfit to gather, but when it turns towards

the sky, it is ready, however green it may appear, and will soon split and disperse the seed. But if you wish to save seed for the sake of raising new varieties, put half-a-dozen of the best and most distinct varieties into six or eight-inch pots, and keep them in a good one-light box, that they may be the more easily shaded when necessary, and protected from excessive rain; watch these as they come into flower, and pick off every faulty bloom;—better have a single pod from a perfect flower of a good sort, than twenty from those that are deformed, or not truly marked, or weakly. Where there is plenty of frame-room it is a good plan to pot them in three-inch pots, instead of bedding them, because they can be turned out at any time, with the ball of earth whole.

Perennials in the borders comprise many fine things that require the same treatment, and are therefore not worth separate mention. The tall weakly-growing ones require support against wind and heavy rain, which will break down many plants. Those done flowering want cutting down and trimming; and some which spread out a good deal require separating for increase.

Polyanthuses and *Primroses* have to struggle now against many enemies; the red spider is the most formidable; but this rarely attacks a healthy plant, perhaps never. Sudden checks are bad for plants, and for this tribe of flowers nothing checks more than want of water. If they are neglected in the hot months, it is almost fatal. The great object, therefore, is to well supply them

with water, and shade them in the middle of the day. If they were in their natural habitation, in a shady coppice, or at the edge of a wood, and, moreover, were in their primitive state, they would grow luxuriantly; but they are by culture and crossing far removed from their aboriginal condition, and, like thorough-bred horses, cannot stand roughing it. If any of these have not been parted, let it be done at once; separate them into single hearts if you can, and plant them out in beds six inches apart, till they are strong enough to pot off.

Roses want but little attention; but if you go over them and cut out or rub off all the weak shoots, that grow inwards, it will do the tree or bush good. In Shrub-berries, *Roses* may grow wildly; but in the Flower Garden they should be kept from getting confused; and branches that grow inwards confuse the head of the plant, or bush, keep out air and light, and weaken the main shoots.

Violets are great favourites in pots; therefore a quantity should be taken up and divided, and the single roots potted in four-inch pots—one in each pot. The soil should be two-thirds loam and one-third rotten dung. These pots must be placed in the shade, and well watered as often as the surface gets dry. The double kinds are alone worth this trouble; but there are several varieties. If they have already been grown in pots, turn them out, shake the earth from them, divide the roots, and re-pot them. Where they are growing in masses, you have only to keep them clear of weeds, and give them water.

GENERAL REMARKS.

All kinds of Seedling perennials and biennials should be planted in beds, to grow stocky and strong, or, if more convenient, planted wherever they are intended to bloom. Water only such as have roots near the top. It is better to avoid watering borders generally, unless a long season of dry weather appears to distress the plants; and when you do water, let it be in earnest—give a soaking that will go down a long way; for surface-watering

is bad, and when once begun must be continued, or the plants had better have been without any; for they will go down after moisture.

FLOWERS IN BLOOM.

Asters, Balsams, Campanulas, Candytuft, Carnations and Picotees, Columbines, Convolvulus, Dahlias, Daisies, Marigolds, Hollyhocks, Larkspurs, Lupins, Mignonette, Nasturtiums or Tropæolums of all sorts, Poppies, Stocks, Sweet Peas, Sweet Williams, Zinnias, and many annuals.

THE VEGETABLE GARDEN.

Artichokes.—Little has to be done with these, besides cutting them, as they become ripe for the pot.

Artichoke, Jerusalem.—Nothing but weeding and earthing up is required.

Asparagus must not be cut after the first week or so, but allow them to run to stalk; when they are continued too long in cut, it weakens the plants for another year; keep them clear of weeds; especially clear the weeds from seed-beds, and young beds not in cut.

Basil is one of the herbs as easily grown as any, yet, either from ignorance of its uses, or perhaps of its existence, it has always been dear. There is no reason why it should be more scarce, or more dear, than thyme; as we have directed it to be sown with all the rest of the herbs, the principal thing to do now is to gather it and dry it in the shade;—this the finest of all additions to soups, as a herb.

Beans.—Remove any broad beans that have done bearing, and have the ground dug and dressed, ready for anything.

Beans, Kidney.—Keep the crops clean; as soon as the first is over, let the ground be dug, dressed, and kept ready for anything; a last crop may be sown the first week in the month.

Beans, Scarlet.—Continue to take off the tops of the strong shoots of those grown without sticks, but those well stuck may be allowed to grow as they please; take some pains to gather the beans while they are in prime order, that is, when well grown, but before the beans within begin to swell.

Beet Root.—This should not be allowed to grow in a crowded state. If any have been left too thick, let them be thinned; they ought not to be nearer than eight or nine inches; and although this was, perhaps, intended at the hoeing out, some will frequently

Spinach, may be sown now, for the round-leaved sort in hot weather runs to seed, without attaining any size.

Turnips.—Sow the last crop the first, or, at latest, the second week. Hoe and thin out the last sown, and keep them clear of weeds till the crop is strong enough to keep possession of the ground.

GENERAL REMARKS.

Saving of seed is an important operation; for when once it begins to ripen, there is great risk of loss in even a day's neglect; no matter what the subject, it must not be allowed to burst the pods. Birds must be kept off by some means, even if by watching and scaring with noises. In all the planting-out business, the plants must be rammed firmly; in large spaces, the ground should be rolled before planting, in small ones trodden;

firm it should be; and when the plants are once established, the surface may be stirred with the hoe, and earth be drawn to their stems. Weeding must be attended to, whether in the paths, alleys, or among crops; but watering must be very cautiously commenced, for once begun, the roots come upwards, instead of going down, after moisture, unless we give enough to soak down to the roots. A few surface-waterings to peas in hot weather will change the growth of the roots altogether, and induce them to come near the surface; and the first time they are neglected, they will suffer very considerably: so that we ought never to water, without giving as much as a good rain would afford them, and one good soaking a week, would be ten times better than the same quantity of water given in two or three waterings.

THE ORCHARD AND FRUIT GARDEN.

In this month we have so me of the most pleasant portions of the management,—the gathering of some of the crops. Wall-fruit, in particular, requires some attention, which as it ripens should be gathered, without the slightest violence. If they do not leave the tree on being gently lifted, they are not sufficiently ripe; and it must be borne in mind, that Peaches, Nectarines, Apricots, Plums, Figs, and soft fruits generally, spoil immediately if pressed or bruised. Keep all the ground clear from weeds; especially the borders next the wall, and it is a good plan to fork and rake them

frequently,—it is a great check upon those who would step across and help themselves; for it leaves the marks where none but your own should be seen. The fastenings of all the branches of fruit-trees on the wall should be looked to; and, if any have been loosened, make them all fast. In gathering soft fruit use a flat basket, and only allow one layer; never put one on another.

Currants and *Gooseberries* intended to be kept as late as possible, should be covered with net, the Northampton hexagonal net, now in general use, will keep out even flies; but it must be

carefully put on and drawn together underneath, or all our enemies may crawl up from the ground.

Raspberries and *Strawberries* should be gone over daily when they begin to ripen; for they spoil fast, and one-half the benefit of a good crop is lost if neglected in this respect. The runners of *Strawberries* may be pegged down if wanted, and taken off if not required for increase.

Standard and Espalier Apples and Pears will be the better for thinning where a crop is too heavy; for it is certain that when a tree is over-loaded one season it has but a poor crop the next, and the fruit of a heavy crop is never so fine as that of a moderate one; reduce them, therefore, to a fair average quantity for the size of the tree.

If any trees are infested with vermin, bring the garden-engine to bear upon it with a smart dashing of water through the largest rose, or distributor. If you have weeds to burn, always burn them on the windy side of an orchard; for the smoke blown among the trees will disturb thousands, and the engine or syringe will wash them off.

Tomatoes, which grow well on the fruit walls, between the trees, should be carefully stopped beyond the first or second bunch of fruit, and the shoots taken off as fast as they come. They need not occupy the wall more than a foot in height if care be taken; and the fruit is all the more fine for being thus limited in quantity.

The general superintendence is necessary daily, to see that all things are undisturbed, and to set any matter right that may be wrong.

Vines.—Continue the manage-

ment of *Vines* as already directed, removing from time to time all useless shoots, and look to the final thinning of the grapes. Many persons, by way of pushing them on a little, hang glasses over the bunches; but these things involve us in much trouble. All the shoots that have recently come out must be displaced; but avoid picking off leaves, or even removing them, except where one is close over another. We do not recommend stripping the *Vine* that the sun may get to the grapes; and if the shoots that would be useless and injurious are removed, the leaves that are on the bearing branches are all wanted.

Insects are our great trouble now. Snails, wasps, flies, ants, and we hardly know what else, are industrious and want to be first with the ripening fruit. Snails and slugs must be hunted and destroyed. A few cabbage-leaves at the root will often betray these, when all our pains to find them have failed. Examine them daily; for one intruder will sometimes spoil a dozen. Bottles of beer and sugar hung at different parts of the wall will sometimes be more attractive than the fruit.

Walnuts for Pickling should be gathered before the nut hardens. If they are large enough, try one or two before you gather any quantity; because, if you find the shell forming, they are unfit for use, and are better left to ripen.

FRUITS IN SEASON OR IN STORE.

Strawberries, *Raspberries*, *Apples*, *Apricots*, *Nectarines*, *Peaches*, *Pears*, *Plums*, *Cherries*, *Currants*, *Figs*, *Gooseberries*, *Mulberries*, *Grapes*.

THE NURSERY.

THE principal work in the Nursery is to keep the stock clear of weeds, and look after the growth of stocks on all worked trees. Wherever a shoot is made from the stock, remove it at once, for it will very soon take such a lead, if left on, as to stop the growth of the worked portion.

Seedling Plants may, if the weather be very hot, require an occasional soaking with water; but it must be done effectually, if done at all.

Look over the new-grafted trees; clear the stock of all side-growth, that the whole strength of it may go into the scion, which must alone be allowed to grow.

Young Seedling Evergreens in pans, and small plants in pots, require constant care. Many require shading during the hottest part of the day, and watering every evening.

It is necessary to go over all newly-budded stocks, to untie the bandages, trim off all the stock beyond the bud, remove all the growth of the stock, and allow the growing bud to progress as a single shoot, or stop it, to induce side-shoots at once, depending, of course, upon what the tree is designed for.

So also treat the young grafts that are making rapid growth: by

taking off the tops, they form a head at once; by allowing them to grow on, they form a long shoot.

Hoe out the beds of seedlings, or weed them by hand; and if the young plants are too thick, you have the choice of hoeing them out as you would turnips, or drawing them out and transplanting them, if worth the trouble. By thinning them either way, the remainder will grow twice the size they would if left in a crowded state.

Generally attend to such of our former hints as are applicable to the present state of the stock; dividing herbaceous plants that have done blooming, and planting them in nursery beds to strengthen layering of Carnations; planting out seedlings out of doors, or potting them in doors; repotting such as have become pot-bound, or approaching it, and plunging young plants of Conifera in their pots, are ordinary operations, some of which are always going on in the Nursery, and are done from time to time, according as they press and the weather dictates.

Take slips from double Wall-flowers, and all other perennials that afford them, and strike them under a common hand-glass, in the open air.

PITS AND FRAMES.

Auriculas claim the first attention this month. Many gardeners differ as to the time of repotting;

but we have found, upon the whole, August to be the best month. The plants have produced

all the offsets they will give that can be available for increase. They have had a summer's growth in the open air, and have done all they will do in the way of increase, for a time at least. Indeed, if they were to grow any more, they would, in all probability, throw up premature bloom during the autumn. Take the plants, therefore, singly, and turn the ball out of the pot to see if the roots have reached the side. The old practice was to shake all the earth off the root, and break off all the side offsets. If the root be healthy, merely trim off the longest fibres. Get a clean pot, fill it one-fourth, or even one-third, with broken crocks, and put soil in the form of a cone, highest in the middle. If the main part or centre of the root be long, shorten it to two inches below the collar; but if there be any part of it cankered, cut it away with a sharp knife, even if you have to go half through the root, for it is the only chance of saving it. The smallest remains of canker will spread, and get deeper, and eat the root away. Then place the stump of the root on the centre of the cone, and press it down gently, till the collar of the plant is a little below the rim of the pot, and arrange the fibres all round. Then fill up with the soil, gently pressing it to the fibres; and when the pot is filled up to the under part of the leaves, press the whole down together, plant as well as soil, so that there shall be half an inch of the pot left unfilled. This enables us to water them easily and effectually; but if the pot is too full of soil, we have to water two or three times before the soil is

all wetted. With regard to the soil best adapted for the ordinary growth of *Aurículas*, the staple should be loam from rotted turves; that is, turves cut as if to lay down, but piled in a stack, till the grass and fibre all rot together: two parts of this, and one of well-decomposed cow-dung, or for lack of this the dung from a Melon or Cucumber bed, rotted into mould, will be found efficacious; but if the soil be too adhesive for water to percolate freely, clean river or silver sand must be added. If the turves have been in general cut thick, or the heap has been formed of half spits from the top, including the grass, it will bear half dung and half loam. But when turves are cut thin for laying, and then rotted, the loam contains half its own bulk of vegetable mould, and one-third dung is sufficient. As soon as the plants are all repotted, they may be placed in the frame and watered with a fine rose all over, and shut up close for a day or two. In the meantime, all the offsets with roots may be put in three-inch pots, and all without roots should be placed round the edge of four-inch pots, and be covered with a hand-glass within the frame for a week or two, till they have settled in their places by one or two waterings. All the small plants that appear healthy on turning out the ball, and are growing well, may be shifted to pots a size larger, without disturbing the roots or balls.

Aurículas, after repotting, must be very carefully managed; occasionally watering, but not often. Shading always from the extreme mid-day sun, and wholly exposed

when it is not too powerful, they will progress well, and mild warm showers will never hurt them.

Pansies and *Pinks* are always useful in pots. The former is always in demand, because, by constantly taking off the side-shoots, you may always have them in a condition to plant out. The *Pink*, which if piped at the proper time is well rooted, may be advantageously potted, as well as planted out in store beds and beds for blooming, because they are always in a condition to travel any distance, and in better trim than those in beds; but these subjects in small pots must be frequently watered, because they rapidly get dry, and it is when dry, and not before, that they must be watered.

Miscellaneous subjects, in great variety, may be advantageously grown in the frame, because it affords the greatest facilities for shading, protecting from rain and sun, and regulating the quantity of water a plant receives. Choice plants, intended for seeding, should always be in frames, or, at least, under glass, if possible. Five or six of the best and most striking *Pansies*, of good properties, grown in a frame by themselves, will be

almost certain to produce seedlings better than any one of the parents, and perhaps partaking the good qualities of both.

At this period of the year, every broken pane of glass in pits and frames should be removed, and good ones put in. The wood-work should be repaired and painted, and loose putty should be cleared away to make room for good sound work. Next month we shall be wanting to occupy all the frames with plants.

We sometimes think that we ought not to have separated this department of an establishment from the forcing ground; but as everybody can get a common garden frame, and many plants require shelter as much from rain and sun as from cold winds, they may be considered, when without artificial heat, a sort of necessary appendage to all flower gardens.

Seedlings of all kinds, choice enough to be worth the trouble, should now be pricked out round the edges of pots, and be placed in a frame to be shut up in windy weather, shaded in hot weather, and protected or exposed, according to circumstances, in rainy weather; either of which in excess is injurious.

THE FORCING GROUND, ETC.

THE Forcing Ground, and almost all the structures in it, have but little to do. Pines and Vines are the only fruit-bearing occupants: and however unpopular the word may be, the business now is all "routine." So long as

there is fruit on the Vine, so long have we to remove all young growth; and even when grapes are ripening, we may see here and there a bunch or a shoulder that will be better for the removal of two or three more berries. The

thinning of grapes is performed generally at twice going over; but the eye is often offended afterwards with some left on that which should come off. In fact, the swelling of the berries often sufficiently changes the form of the bunch to suggest other removals. Moisture must not be forgotten, nor heat neglected. There are many changes in the weather that would be fatal if it reached the Vine.

The Pines may be shaded from extreme hot sun an hour or two in the middle of the day, and the house should be kept moist. Water them when dry.

Strawberry plants done with should be turned out in the ground. All the plants that have been forced may be thrown away, if done with, or repotted if they are to force again. For instance, French Beans when done bearing are useless, but Roses will do for forcing year after year, and be better every year. Strawberries are of no further use for forcing; but, if turned out in the open ground in rich soil, will bear again in the autumn. Vines and Figs in pots want a regular but careful supply of water. All the dwarf fruit-trees in pots may be plunged in the open ground as soon as the fruit is off. Some people try to force the Chrysanthemum, to get it in earlier than it would come naturally. They cannot, however, be affected much until they show their buds; and then the mere opening of the flowers may be hastened a little.

Chilies and *Capsicums* may be kept warm in any of the forcing-houses; for the greater the heat in which these things are ripened,

the higher will be the flavour. They are also very pretty plants, particularly the Chili, which may be grown very handsome, and their bright green or red fruit look gay.

Cucumbers.—Attend to fresh linings where necessary, and a succession of hotbeds should be made for those which continue the year round. Remove whole branches from the crowded frames, preserving young bearing shoots. In taking away the old wood, search back for the most healthy shoots nearest the base. The treatment of the plants should be always alike in some respects, always getting rid of useless wood, and encourage young bearing shoots. Shade from the extreme heat of the sun. Give air by tilting the back, and cover up at night if the wind be at all cold. If you have favourite sorts, peg down young shoots to strike root, and make new plants, which can be carefully cut off when well rooted, and in a few days be transferred to the new hotbeds.

Fruit Trees in pots want looking to, and well watering, till their wood has done growing, when it may be left to ripen, and take its chance in the open air.

Melons.—Allow three fruit at a time on a vine; but if the shoots are pegged down at the best joints, you may allow more, because the roots at the joints are of great use to the swelling of the fruit, and more can be supported. Refresh the plants occasionally with water, but not before they want it. Cover up at night, and in windy weather they need not be removed till the sun shines out.

Orchard Houses, according to the plans which have become somewhat popular, are structures not to hasten the fruiting of anything, but to protect the trees from the spring frosts and cold winds; but having no artificial heat, the changes, however, are sometimes too great, where there are no means of checking it. Then we have seen Plums, Cherries, Nectarines, Peaches and Apricots in one house; and while the Plums and Cherries stood the changes well, and set with good crops of fruit, the Apricots, Peaches and Nectarines failed, although the bloom was equally fine. To render these Orchard Houses efficient, there ought to be the means of raising the temperature a little, in case of very hard frost, when the bloom is once open, for it comes sooner than it would on an open wall, although it can hardly be called forcing. Still these Orchard Houses, as they are called, may answer well where there is no lengthened frost after April comes in. The glass walls, about which such a fuss was made, turn out, as we predicted they would, costly, troublesome, and thoroughly useless. In fact, all the trees planted in them must do badly, for glass upright sides within eighteen inches of each other, with a glass roof, is no protection against severe cold; whereas glass in front of a wall will keep off cold winds, and keep in for a time a good deal of the natural heat.

FLOWERS.

Balsams must be continually repotted; and so long as you want them to grow, so long must you deprive them of their bloom-buds,

for when they bloom they cease growing. But as *Balsams* are handsome any size, so that the side-branches have grown well, they may be allowed to flower at any period. They absorb a good deal of water, and it is necessary to give it once in the day. In potting, however, they should be potted low enough to allow of an inch to hold water, so that to fill up the pot is sufficient, without waiting for any to run through. Any number may now be placed out of doors, or put into the ground without disturbing the balls of earth.

Bulbs, for very early flowering, may be potted this month; but they are as well in the open air as in the houses, because the average warmth in August and September is high enough to set them all rooting. We do not like the plan of burying the bulbs in pots. There are means of keeping them as cold without any danger, and the growth will be much more wholesome than the shoots they make underground; but there is no necessity for potting bulbs so early by a month. Those, however, who want a succession of forced flowers, must begin in time.

The bulbs that are most appropriate for very early forcing are Tulips, Hyacinths, Crocuses, and Narcissus, which look best three in a pot, except Crocuses, which may be six or more.

Cockscombs must be continued in heat and moisture, and be kept as near the light as possible. See that they have larger pots as soon as the old ones are filled with roots. When they have attained a tolerably large size, they may be trans-

ferred to the Greenhouse or the Conservatory, where they will look well for months.

All the Americans, Roses, Camellias, and other plants that were forced, ought to have made their wood and ripened it. They must

be got together ready for transfer to the greenhouse or forcing-house; and if the pots are too full of roots, give them others a size larger, and merely water them in to close the earth to the ball.

STOVE OR HOTHOUSE.

In this House we combine all the advantages of separate vine-ries, forcing-houses, pineries, and hot-pits, and dung-beds; that is to say, we can do something for all the different plants belonging properly to these structures. Grapes are frequently grown on the rafters; Pines fruited in the tan; fruit of all kinds, as well as flowers, are forced, and a collection of plants grown besides. In many establishments the Stove and Greenhouse have to do all the work for the Conservatory. However, all these things may be left for the respective houses, and pits designed for them; and if any are necessarily grown in the Stove, the treatment must be assimilated, as nearly as possible, to that in the proper department.

Amaryllis.—This beautiful tribe of plants is in flower at many different seasons; in a large collection some will be always in bloom. The whole system of management, and it cannot be too often repeated, consists in keeping them growing as long as they will grow, and when the leaves turn yellow give no more water; when the foliage is dead, they must rest as long as they please, to do well; when they, without any water,

start of themselves, we may turn out the ball, shake out the earth, trim off any dead portions of the root, repot them in good rich compost, and put them to work. If the plant had matured itself before it rested, it will first throw up its sheath of bloom; and as it will grow fast, it must not stand still for water. This month some will have completed their growth, and the leaves begin to turn yellow; turn the pot on its side that it may get no water by mistake; others may be blooming, but their treatment must depend on their state.

Climbing Plants want attention daily. Their shoots must be directed where they are to grow, that their supports may be properly covered, whether they be mere sticks or trellises, or fancy wire-work. The young shoots must not hang about, nor tangle with each other.

Glorineas, Achimenes, Gesneras, all showy plants, must be frequently watered; wait only for the surface to be dry, but those in flower must be kept out of the way of the syringe. The White Achimenes is the most difficult to keep clear of spots, the least touch spoils it. The Large

Purple suffers from the thrip, which destroys the colour. Heat and moisture, occasional fumigation, and, before the flowers come out, smart syringing, generally prevent the mischief.

Ixoras should be syringed until some of the flowers open, when it must be discontinued. If the bug attacks the plant, a brush and warm soapsuds can alone remove it; and unless instantly cleaned, it will destroy the foot-stalks of the flower-buds, and totally spoil the bloom.

For watering and syringing, take the chill off the water by putting half-a-pint or so of water from the boiler into the water-pot.

Cuttings may be taken from any plants that offer shoots in a proper state; that is, shoots an inch to two inches long from where they come out of the old wood.

The house should not be below 65° at night, and if it be kept moist, it may be 90° by day; but air may be always given to lower it to 80°, but not below.

All the plants throughout the house should be often examined to see that none are pot-bound, or water-logged, or too dry; see that the drainage is clear, and that the roots have room to grow.

Cleanliness is everything in the Stove; neither bug nor scale, green-fly nor red spider must

have a day's peace, or they will give you a week's work.

Rooted Cuttings should be potted off into three-inch pots; and any young plants that have filled their present pots with roots must be removed to others a size larger. The more forward ones may want a change of pots, for they do no good after the pot is full of roots until they are released.

Seedling Amaryllis may be shifted as soon as they fill their pots with root, and, like the more mature bulbs, be kept going with heat and moisture till the yellow tops of their leaves indicate that they want rest.

Seedling Plants of all the Stove kinds should be pricked out from the seed pots or pans, into four-inch pots, round the sides only; any that have been so disposed of, and grown so as to touch each other, may be potted singly in three-inch pots, watered to settle the earth about the roots, and grown for a time near the light.

Specimen Plants in a more advanced growth should be examined to see the state of their roots, because they want room, and must have it to keep them in health.

The Syringe must never be idle in the Stove; heat and moisture agrees with everything while growing, but we must avoid allowing the flowers to be splashed.

CONSERVATORY.

Of the many subjects that are subservient to the gardener for the decoration of the Conservatory, there are none more useful than the Rose, which, cultivated in pots in the same way as for forcing, can be removed in or out as they lose or retain their beauty, and

the great variety of colour that often renders it one of the most important plants in the garden. Dwarfs, in the front of the borders, plunged with their pots, and standards further back, give a beauty and a fragrance beyond measure charming. Balsams diversify the colours and habit; Cockscombs, quite different in character from everything; Scarlet Geraniums, always ready, and of all heights and sizes; Verbenas of many colours, either formally grown on wire frames, or hanging over the sides of the pots; Dahlias of the colours most needed as a contrast to what is already in the place—yellows, whites, and scarlets in particular; various annuals in pots.—The whole garden, indeed, seems ready to afford something for the Conservatory.

Some taste must be exercised in grouping these numerous subjects; contrast does a good deal; uniformity and symmetry in the groupings, and some skill in the adaptation of the heights, that all may be seen to advantage, are absolutely necessary. All the beauties of all the houses would fail

to interest a visitor if they were jumbled in without order and neatness. Contrive that any of the stove plants that may happen to be in bloom, shall be put in the most sheltered parts, free from draughts of air; and do not put two plants whose flowers are the same colour together; contrive to preserve in every part a lively contrast in the groups, whether they be on stands or shelves or on the ground; and so dispose the plants that the flowers may be judiciously distributed over the building.

Remove everything as it gets past its prime; for there must be nothing in second-rate order. The convenience of pot culture even for the borders will be found in every change, because, with a little forethought, one set of plants can always be prepared to succeed another. We need hardly repeat our hints as to cleanliness, care in watering, regulating the climbing plants, removing all the flowers as soon as they begin to fade on the plants, and clearing away all the petals and leaves that fall, and cutting away old stems.

GREENHOUSE.

THE principal tenants of this department will be Balsams got forward in the forcing-ground, and brought here when the regular winter occupants are turned out; they keep a brilliant appearance among a few subjects that keep their places. These require watering daily, fumigating sometimes, shading always—that is, shading from the mid-hours of sunshine.

By paying some attention to the colours, the Greenhouse may be so furnished with the different varieties of Balsam, as to present a much gayer scene than at any period of the year.

The great collection of Greenhouse plants, now spending the summer months out of doors, want just as much attention as they did in the house; they are con-

suming as much water, their roots are growing as fast, and fill their pots as soon; they want as much shelter and shade, get into as much mischief if the drainage is stopped or the supply of water be neglected.

The young Greenhouse plants, both seedlings and struck cuttings, want potting or shifting; the larger plants now advancing rapidly towards specimens must be examined, by turning out the ball; and if the roots have filled the pot, a larger one substituted. Azalias and Acacias have pretty nearly finished their growth. Cuttings may be still taken off when any fresh shoots have come out that are not necessary for the beauty of a plant, and may be struck under a hand-glass. Every plant should be occasionally removed; for the constant washing through of the

soil fastens the pots to the ground, and, though it may not stop it, materially retards the drainage, which is unfavourable to a plant; for plants ought to be nearly dry before they are watered, and when the drainage is checked the soil is longer drying.

When a plant has made its new wood, and set for bloom, it should have no more water from uncertain sources; therefore, it is desirable to remove it somewhere under cover, that the supply of moisture may be limited. The whole collection should, therefore, be examined as to this one point, and care taken to treat them accordingly. If this be not done, constant watering or much rain will set them growing again; then the wood may not perfect itself, the plant will be more tender, and the bloom for the next season spoiled.

HEATH STRUCTURES.

THE plants here should be as open as out of doors, with the advantage of being able to shade them in the hottest part of the day. Attention to the watering and shading is all that is required for the established plants, except at the season for shifting, which should not be done when the plant is in full growth.

Among the rising generation, great care must be taken in every stage from the cutting-pot. When cuttings are well-rooted, they should be potted in a compost of two-thirds peat, rubbed through a coarse sieve, and one-third loam from rotted turves, which is one-half

pure loam, and the other half vegetable mould, formed by the rotting of the grass and fibre. If you have reason to believe the loam is poor in this respect, let it be made good by adding to the loam one-half vegetable mould, before you measure it for use. Pot the small-rooted cuttings in thumb-pots (two and a half inches diameter), and keep them in the shade till established. Those which have been potted some time must be looked to, for they will require a shift to three-inch pots or sixties, and so upwards. Those which have been a few weeks in three-inch pots may want more room,

and this may be the case all through the collection.

When a Heath has done blooming, and before it makes its new wood, is the time for pruning it into shape. Frequently, by judiciously shortening some of the branches, the plant may be thrown into better form; and in this operation you have to consider what growth the new shoots will make, and cut the plant accordingly.

The specimens that are in bloom must be shaded from the rays of the sun, three or four hours in the middle of the day, otherwise the season of flowering would be greatly shortened.

In watering, the greatest circumspection is required; too much is as bad as too little. The plant

will not bear extremes; so that every plant should be examined before water is given. If it be already damp, it must not have any. If, too, the mischievous advice given in gardening books of modern dates be followed, and the plants are given "a little water," a collection may be destroyed in two or three months. The watering must be regulated by the wants of the plant, which either requires the whole soil in the pot to be thoroughly wetted, or it wants none; a plant can never, under any circumstances, want a little water; and this cannot be too strongly impressed on the mind. Seedlings must be treated like rooted cuttings, and undergo the same shifting.

GERANIUM HOUSE.

THE whole of the plants may now be cut into a good form for breaking, and the cuttings made the most of. There is plenty of time to strike them under a hand-glass in a shady border, or, if exposed, the glass itself shaded. The plants so cut back are to be left in the open air to break.

In cutting back Geraniums due regard must be had to the shape of the plant, and proper allowance made for the probable new growth.

The rooted cuttings and advancing plants must receive attention to their requirements; potting and shifting must go on.

If the plants that were cut down last month have begun to break, they may be shaken out, the roots trimmed, and be repotted in as small a sized pot as

will well contain them; they then take up less room in the house, and feel the benefit not only of the fresh soil in which they luxuriate at first, but in every shift they have.

If any seedlings have been selected for increase, let every cutting be taken care of, and the plant itself be trimmed into good form for a specimen. Seedlings of the last spring sowing must be potted when large enough, but they may remain in the pots they were first pricked out in, until they touch each other, then pot them singly into three-inch pots.

Rooted cuttings may be potted into three-inch pots, and those which are advancing may perhaps want a shift all through; this can only be told by turning out one or

two of the balls to look at. The best soil, for ordinary healthy growth, is two-thirds loam from rotted turves, and one-third rotten dung from a cucumber-bed, thoroughly decomposed.

Pick the ripened seeds now being saved; for when it begins to ripen, the seeds fly away rapidly, unless secured: for this purpose, they must be examined daily, and picked over.

CAMELLIA HOUSE.

THIS may now be prepared for the reception of its usual tenants. Let it be thoroughly cleaned, the woodwork painted if necessary, all the glass set to rights, and the whole put in good order.

The Camellias will be as well out of the wet as in it, perhaps better under cover than otherwise; they have set their bloom, and should have shade and shelter, and their watering properly attended to; they might set off

growing again if left to the sun and rains.

They may be placed in the house as the place most convenient to wait on them in; but if there be shade and shelter out of doors, they would be quite as well there. If the season should set in wet, it will be better to get them under cover; but there is in reality nothing required but the most ordinary treatment all this month and next.

WINDOW GARDENING.

THIS amounts to selecting the plants that look best in the window, and giving those that we winter the benefit of the open air. Balsams are showy, but they want water daily; Mignonette is a favourite, Stocks are in good order, Sweet Peas in bloom, and an endless variety of annuals will be flowering all the month.

For the treatment of Heaths, Geraniums, Camellias, and the like, consult the several heads; because the window is, in fact, the substitute for the several

houses, and the plants grown there want the same treatment as they would in their respective houses.

Wardian Cases are rather connected with this department of gardening; and they succeed best when treated as if they were small greenhouses, the glass kept clean, the drainage kept open, watering supplied when necessary, and air given on mild days, if the air be pure. If they are in London, or a large manufacturing town, the closer they are kept the better.

SEPTEMBER.

PLEASURE GROUND AND SHRUBBERY.

THERE is nothing more to be done this month than has been already recommended, unless the fall of the leaf commences, which if there be a frost is inevitable; and then to keep the Lawn clean is almost impossible; for, before it is swept all over, the part done first will have been covered again. However, it should be swept daily. It is in consideration of this, that we object to planting deciduous trees upon dressed ground. Still in high winds the leaves fly a long way; but scarcely any distance will quite secure a Lawn from this autumnal plague. The mowing and cleaning up must go on as before.

Flowers in the borders among the shrubs want but little attention; but if the Dahlias and Hollyhocks are at all exposed they must be supported.

The various shrubs and trees should be occasionally looked over; particularly all plants that have been worked upon other stocks; and if any shoot or sucker has started, it should be removed, because it cannot be too often repeated, that the stock is generally so much stronger than the head worked upon it, that when it once gets a start unmolested for a time, it will take so much nourishment from the variety worked on it, that it becomes at

first almost stationary; and if the stock gets a second season of growth, it will destroy the head altogether. Roses worked on Briars are very apt to lose by the growth of the stock; for it never seems to give up the struggle; whereas fruit trees, and many other subjects, are rarely hurt by the growth of the stock. Rhododendrons worked on the Ponticum stock would be liable to the growth of the stock below the working, and all the Thorns (*Crataegus*). Scarlet Horse-chestnut, and a few other subjects, are also liable to suffer from the growth of the stock; and unless the gardener looks over all these worked subjects frequently, he is liable to lose his pets. Suckers from the root are more likely to be overlooked than a growth high up the stock; and, therefore, every one should be taken off not merely on the surface of the ground, but dug for and cut off as close to the root as possible.

On the "off days," when no mowing goes on, a good many Daisies, Dandelions, and Buttercups may show bloom: that is the time to scoop them out by the root, and fill up the holes with road sand; the best of all things to make a level surface, because grass will spring up from it, and it is soon covered.

Shrubs and Trees in bloom.— Arbutus, Althæa, Broom, Clematis, Honeysuckles, Jasmines, Passion Flower, Pomegranate, Roses, Laurustinus, Spiræas, and a few things out of season.

THE FLOWER GARDEN.

Annals.—Many of the late-sown and planted subjects are now in fine bloom, or coming into flower, and want no other attention than cleaning and stirring the ground about them, and pulling up any that are too close together, for light and air are essential. Those past bloom should be pulled out, and their places occupied with something else. Nothing is better for this than Chrysanthemums turned out of their pots. It is important that everything past bloom, and out of condition, must be cut down or taken away. The Dahlia, turned out of pots, in a forward state, is excellent for replenishing the beds and borders.

Auriculas in the flower-borders and beds are confined to the common sorts; but they may be parted, and planted out to grow strong, either in small beds, or in different parts of the border. The show and stage varieties are in their pots and frames.

Carnations and *Picotees* have by this time ripened their seeds, or nearly enough done so to require constant watching, and the layers have all rooted. When by lifting one or two you are convinced of this, cut them off, dig them up with a knife or piece of hard wood, and pot them two in a four or five-inch pot, and take them to the frame ground to be properly sheltered from the sun, and protected against beating

rain. If there be any short growth of grass about the old plants, earth them up, cut down the long flower-stems, and regulate the bed in which they are growing, or carefully take them up with a ball of earth at their roots, and plant them closer together, or pot them off; sink the roots deep enough for the base of the shoots to be in the soil. Pot off seedlings.

Chrysanthemums.— These may have occasionally a watering with liquid manure; it will give them strength, but only once to three times of plain watering. Those intended for cut blooms must not be allowed to grow any side-shoots; all the strength must be thrown into the flower intended to be shown, all other buds must be taken away. Those in pots, intended for specimens, must be shifted if their roots touch the sides of the pot. Where any small plants are wanted in flower, the tips of branches may be bent down, and layered even after the flower-buds show; peg them down at the third joint from the top, making a slight incision just below, and slitting the stem through the joint about half-way through the stem, rather under than over; cut off the portion below the joint of the first slip, and peg it down in a three-inch pot, there to remain a fortnight or three weeks: when rooted, it may be cut away from the parent, and this will flower

less than six inches high. Great liberties may be taken with the *Chrysanthemum*. It is very hardy when planted in the ground, but frost will injure them in pots, because it penetrates the sides, where the tender points of the roots are. If, therefore, plants in pots are to be grown and bloomed out of doors, they should be sunk in the ground.

Clematis.—The autumn-flowering *Clematis*, whether trained up a wall, over an arbour, or trellis, or covered way, or in front of a house, the fastenings must be looked to, for the growth and bloom together are very heavy, and will frequently disturb some of the ties or nails.

Dahlias.—This month the flowers are abundant, the growth rapid, the stems and branches very brittle, and the wind often powerful; consequently additional stakes should be put where they are necessary; none of the branches must be allowed to sustain their own weight; they must be assisted, every branch must be supported by ties reaching one or other of the stakes. It is the fashion to shade the flowers with pots. A flat square board about ten inches across, with a hole in the centre, and a slit reaching from the edge to the hole, is supported by legs at the corners, or by any means that will hold it steady in a flat position; the stem of the bud intended to be relied on is put through this slit till it reaches the centre hole, and the table is supported at such a height as will suit the flower. This slit is then stopped up with moss, or cotton, or hemp; and the bud, then above the board in the centre, but close

down, is then covered with a flower-pot, or other opaque cover, or some kind of shade. This is done with a double motive; it protects the flower from sun and wet, and the cover fitting close to the board prevents the intrusion of earwigs or other enemies, which would otherwise destroy the hopes of the exhibitor. The best contrivance we have seen, and which we suggested so long ago as 1843, in a treatise for the Gardener and Practical Florist, is a flower-pot with the bottom chipped out; for when it was desirable to have light, it was covered with a glass, and when darkness was preferred, a tile was used. These coverings, and all the trouble belonging to them, were only valuable as preventing injury from insects; for, although covering up preserved the flowers from heavy rains and burning sun, and prevented any sudden check from cold winds and falling frosts, yet the flowers so brought up were not so brilliant, nor would they travel so well as those grown in the free air, and merely shaded from the sun by a slight paper umbrella at some distance from the bloom. In gentlemen's gardens and well-kept establishments, these shades and coverings would not be tolerated; and none but exhibitors would put up with the ugly apparatus in use. When we suggested covering with a flower-pot, before many of the present race of growers were even known, we wrote for exhibitors only; and even now, the most successful exhibitors act almost entirely upon the directions we gave from 1832 to 1843.

The *Dahlia*, as we all know, is continually growing and blooming;

and, consequently, if left to itself, would soon be an immense plant, with a thicket of small weakly shoots; therefore it is necessary to stop them at some point, and the period for stopping is when the buds bid fair to be good flowers, then all growth beyond the selected flower must be stopped; side-shoots, except here and there a strong one, should be taken off; all the buds in the immediate neighbourhood of the flower should be removed, and this treatment should be observed with every branch. Weakly shoots, and those growing inwards, should be cut away; they only damage the plant, and keep out light and air. Towards the end of the month, we naturally expect frost; sometimes we have it severe enough to kill the foliage much earlier. They are no longer safe; the moisture of the plant descends to the bottom of the hollow stem, and soon destroys the collar of the root or tuber. Hence, hundreds of roots, sound to look at, have not an eye left alive to break, and many tubers rot altogether. We have found that the best way of preserving the roots good is to lift them directly the foliage is spoiled, cut off the plant to leave three inches of stem, and drain them dry in the house by placing them all stems downwards, so that there may be no poison left to eat away the collars. Seedling Dahlias must be watched; thrown away, if no better than we have already; and if any seem worthy of another trial, save them as carefully as you do the named flowers, and, if possible, more carefully.

Delphiniums, when out of bloom, may be cut down pretty nearly to the ground; but in all cases a bit

should be left standing, for the plant disappears all the winter. Some, however, leave the stems standing, and the particular height is made to indicate what they are. Seedlings should be planted in beds, or where they are to bloom.

Fuchsias.—All those in the open ground are liable to be cut off by frost, so that if any are intended to be saved they should be carefully potted up by the middle of the month; generally speaking, they are not worth the trouble, because young ones can be made to supply their places; at all events, we may confine our care to any particular favourites. These should be taken up with all their roots, and be potted at once in such pots as will afford good room for their roots.

Herbaceous Plants.—Of these there are so many varieties, and comparatively so few worth cultivating, that collections are out of fashion; but as many are out of bloom, the stems should be cut down; each family may be cut to a different height, so that the stems, by their appearance, may indicate what they are. Thus the Phloxes may be one height, the Aconites another, the Delphiniums a third, Campanulas a fourth, and so on; but it is much neater to cut everything close down to the ground, and adopt labels. Seedling Herbaceous Plants may be planted out, if not done before.

Hollyhocks are now past their prime in some places, but in others in full beauty. The thinning of the buds has already been taken care of, we presume, and little is left to do now but continuing to keep them all to one height, by taking off the tops that go beyond the intended elevation.

Uniformity of height is of the greatest consequence in a collection, whether they are planted together in a quarter of the garden, or distributed about the beds and borders. When the blooms decay, take away the petals, that they may not rot the seed—that is, if there is any desire to save it; but no force must be used, because, unless the petals come away without any effort to detach them, they will not have done their office. Seedling Hollyhocks, if not finally planted out where they are to winter, must be disposed of at once, that they may be established before the bad weather sets in. If, however, they are already in beds, they had better remain without moving.

Honeysuckles and *Jasmines*, like other climbing plants, want some looking to as respects the disposition of their new growth, and the security of all their fastenings.

Pansies can be kept as a leading feature, blooming eight months of the year in the open ground, by constantly taking off the side-shoots, and striking them under a hand-glass, in the open border; when a bed comes into flower it is time to plant out another bed, and before that is gone, plant a third, and perhaps the sooner rooted cuttings are planted where they are to bloom, the better they flower. When a bed of *Pansies* is past its prime, it may be cut back, and it will bloom again. Seedlings must be examined, and the common-place ones given or thrown away, as fast as the flowers are developed. Those intended for potting should be potted now.

Perennials of all the sorts not mentioned, and that are orna-

mental in gardens, ought to be parted if too large, and the fragments planted to grow strong. Seedling *Perennials* must be placed where they are to winter before the end of the month.

Phloxes must be cut down when they have done flowering, unless the seed be required, but late ones have not yet done blooming; the taller ones must be supported, if in exposed situations. Seedlings must be got into their winter quarters, whether it be pots, or in a bed; wherever there is convenience, they should be potted, because, though a hardy family, there may be some less robust than others among seedlings, and they cannot be so strong as established kinds.

Piccotees.—See *Carnations*, for they are in all their wants and habits similar.

Pinks.—Pot off in three-inch pots all those intended to be wintered in frames, one plant in a pot. Plant out all intended to be flowered in beds, and see that they are planted firmly, and watered in. Let the beds be well trodden before planting; seedlings also should be planted in beds. The ordinary plan is to plant them in four-foot beds, six inches apart every way, but for show they must be a foot apart every way, to make room for shades.

Polyanthuses.—Hoe the ground between the plants, to loosen it and let air in to the roots. Look well after snails and slugs, and trap them if troublesome; cabbage-leaves laid down will entice them from almost anything, and some will be found under them every morning, till they are altogether cleared off. Seedlings, if not planted out before, must be

now placed in their winter quarters, whether it be in the open ground, or under a wall, or in pots: but many of those who show Polythuses in pots, grow them in the open ground, and pot them up; and it is difficult, though not impossible, to get them up as strong in pots as in the open ground.

Primroses of the double kinds are not quite so robust as Polyanthuses, but the single ones are more instead of less hardy. The double should be in a warmer part of the ground, well sheltered.

Ranunculuses should be looked over in the store-bags or boxes, lest mildew should attack them, and get too strong a hold of them. If there be any appearance of it, they should be brushed clean, and dried in the sun; the bag or box should also be dried.

Roses.—Look well after suckers from the roots, and side branches from the stocks, of all the standards and worked varieties; examine them strictly, that no growth of the stock may escape notice. As the heads are heavy, and the wind has great power, look well to the fastenings and the soundness of the stakes, that they may be sufficient to get through the winter; if the branches have grown very long, it will be well to shorten them.

Stocks.—If you are curious in saving seed, continue to remove every bit of growth, except the swelling of the first few pods that set.

Tulips.—Examine them in the boxes at your leisure hours, that you may correct all that are wrong; look to your book in which you have made your remarks on the bloom of last year; take out the condemned bulbs,

and replace them with others better adapted for their places. Let the bed be dug out by the middle of the month, and the stuff be turned over a few times, to sweeten it, unless you are preparing new; the bed ought to be turned out two feet six inches deep, and with three feet of good soil, it will be six inches above the ordinary surface. New loam from rotted turfs is the best possible soil for the Tulip; it is the same as two-thirds plain loam, and one-third of leaf-mould.

Violets may still be potted for the forcing-ground.

GENERAL REMARKS.

The hoe must be busy all this month, and if the weather be wet, hand-weeding must be resorted to. The gravel walks will give their full share of trouble; the weeds in gravel are far more difficult to get rid of than those in the border, and far worse in appearance. The borders will look very shabby unless all the plants past their prime are removed, or cut down to neatness; where there are bare places, if there be nothing else to fill up with, use dwarf potted evergreens; for the various kinds of Holly, Acuba, Firs, Laurels, Laurustinus, &c., would look interesting. Trim box edging, and generally brush up and make the best of everything; gather the seeds of whatever you are saving.

Flowers in Bloom.—African and French Marigolds, Asters, Balsams, Campanulas, Candy Tuft, India Pink, Convolvulus, Dahlias, Hollyhocks, Larkspurs, Lupins, Coreopsis, Stocks, Sunflowers, Sweet Peas, Zinnias, Nemophylas, Collinsias, Pansies, Mignonette, &c.

THE VEGETABLE GARDEN.

Artichoke, Globe.—These are still in season. Keep the ground clear of weeds; and when you have had all the heads, cut the plant down, and let the offsets have all the strength.

Artichoke, Jerusalem.—Keep this crop clean till next month, when they must be taken up and preserved in a dry cool place for use.

Asparagus.—Keep the beds from producing weeds; pull them out on the first appearance; nothing but the *Asparagus* itself must be on the beds.

Beans, Broad.—Clear off any that are left on the ground, and dig and dress the soil directly, ready to receive anything.

Beans, French.—As the early crops are done with, let the ground be got ready for other crops.

Beans, French Dwarf.—These only require careful and frequent gathering, that none may get too old, in which case they must be left for seed, or thrown away with the haulm. Saving seed is not a profitable step unless the sort be new or scarce, or the place distant from a seedsman.

Beans, Scarlet.—If these be supported by sticks, see that the shoots are properly directed; but they may profitably be stopped at half the usual height, and all the shoots stopped at the third joint; the beans are then within reach, the crop more certain, and much more easily gathered. If grown without sticks, you continue to stop from the first to the last; the leading shoot is stopped above the third joint,

and all subsequent or lateral shoots are stopped beyond the second. In gathering these, the plants must be lifted from the ground; for most of the crop will be found underneath.

Beetroot wants but to be kept clean, and have plenty of room. If two roots are too close together, pull one of them at once. Let no crop be crowded; but above all, such as swell in the ground.

Borecole, or *Kale*, or *Ragged Jack*, or *Scotch Kale*; for this vegetable goes by all these names; if planted out too thick should be thinned, by removing every alternate one, or, perhaps, two of every three. When this is much curled, it is a handsome, hardy, and valuable crop; frequently affording a dressing of good greens in those winters which kill all others. The variegated *Kale* is beautiful, and is more fleshy and tender than the green curled. Plant out more.

Brocoli.—All the sorts want the hoe, the distances regulated, the ground loosened and cleaned. The tops of the sprouting sort, if any be drawn out to make room, may be eaten, the other part thrown to the dung-heap. If you have room, plant out more of all the sorts.

Brussels Sprouts.—Let the hoe be passed among these plants, to loosen the surface; and if they are planted too thick, remove some, and plant them elsewhere if they are wanted. If they are not wanted, the tops will make a capital dressing, and the stems may be thrown away; but if you have room, plant them out.

Cabbage.—At the end of the work we shall give lists of all the best fruits, flowers, plants, and vegetables; and, therefore, we say but little of sorts in the calendar of operations. It is impossible to overrate the value of this vegetable; from its very infancy to its old age, it is useful in all its stages. Many a rood of ground would be idle if it were not for keeping a quantity of Cabbage plants always in hand by frequent sowings. A pinch of seed should be got in this month, to follow that in August; for the seed is no object, and the plants may be. Every bit of vacant ground may be filled with it, even if it have to be cleared in a few weeks; for they are sure to be large enough to eat in a short time. All Cabbage crops that are coming forward are the better for hoeing and earthing. As fast as Cabbage are cleared away the stumps should be removed, unless intended to stand for a second crop; for, if only one sprout be allowed to grow, it will be a Cabbage no worse, though somewhat smaller than the first. Plant out more at any period of the month.

Cabbages for Pickling are now coming to heart; loosen the soil and draw some up to the smallest, that is to say, the most backward crop.

Cardoons have only to be earthed up till sufficiently blanched, and then cut for table; but they are of little estimation now.

Carrots.—As these are fit to pull, and still grow larger, let all that are drawn be so managed as to leave the others wide apart. The keeping of a Carrot through the winter depends greatly on the

growth and the particular season or age at taking up. If well matured, the Carrot will keep in any damp cool place, merely packed in light earth or sand. If too young, they shrivel; if too old, they are woody.

Cauliflowers.—Those which are turning in their flowers must be watched, and the leaves broken down to keep off the sun and rain as before; prick out all the young plants sown last month, as soon as they are large enough, not much more than three inches apart; for they will have to be removed for their winter quarters, and they ought to be pricked out where they can be protected.

Celery.—The rows already planted will require frequent earthing, always in dry weather, and care must be taken to keep the crumbs of the soil from getting into the heart of the plant. If there be any left in the store beds, plant it out in rows on the level ground two feet apart, and constantly earth it as it grows. It will be quite large enough for soups and salads, and may be useful when the best is gone. It will grow enough to blanch six inches high.

Chives may be parted in autumn as well as spring, if increase be wanted. Chives are in demand when onions are scarce, chiefly for salads; and as it is the leaf instead of the root that is chiefly wanted, it is always in season.

Coleworts are a distinct family of Cabbage, which heart when a very small size, or do not heart at all. We have already mentioned the two sorts now in use, although Cabbage plants have almost superseded the true Cole-

wort. In nineteen cases out of twenty the same seed that produces the full-sized Cabbage is arrested in its growth by being pulled up and bunched for market, or eaten at home as greens. The Rosette Colewort, a very distinct sort, is a miniature Cabbage of excellent quality, and the Hardy Green is valued because it stands a good deal of hard weather. We have already recommended the true Cabbage plants to be planted thick, and to be withdrawn when large enough for greens, leaving the rest to cabbage at proper distances.

Corn Salad, Cress, American and Garden, with all other Salad herbs: the first to stand the winter, the other for use as soon as it is large enough, may be sown.

Cress, Water.—Nothing is more simple than the cultivation of this favourite vegetable; all it requires is two or three inches of rich soil covered with an inch of water. If a running stream, so much the better; but a stagnant puddle will grow them somehow. They should always be in an inch or two of water all the summer and autumn; but in winter they might be covered a considerable depth, and the top frozen over without the plant suffering much.

Endive.—Plant out the best from the seed-bed, if there be any left; for it may be useful. Let it have a sloping south border if you can. Tie up or otherwise blanch the full-grown plants for immediate use.

Herbs.—These comprise rather an extensive community, although many have gone out of use, except for medicinal purposes and distilla-

tion; and some consider the herb garden a most important part of their establishment. They may be well divided, however, into two classes. The first, all those useful for culinary purposes and salads, and which should be grown in all gardens. Basil, Burnet, Chervil, Fennel, Marjoram, Mint, Parsley, Sage, Savory, Sorrel, Tarragon, Thyme, are of this description, and may all be raised from seed, and planted in beds, though the perennials may be propagated by slips, and some pains should be taken to gather and dry them for winter use; at least such of them as cannot be had in the winter: Basil, Marjoram, Mint, Sage, Savory, and Thyme, should never be neglected. We have seen both Fennel and Parsley dried and powdered and preserved in wide-mouthed bottles; and we believe everything could be so preserved that is of use for flavouring soups and made-dishes. Angelica, Balm, Borage, Lavender, Rosemary, Rue, are less in demand, but are grown by some for various purposes. If a department of the garden be laid out for herbs, it is as well to cultivate a little of everything likely to be wanted in a family; but many that used to be grown for salads have been completely superseded by the improvement of the Lettuce and better subjects, in the same way that the Artichoke and Cardoon are almost thrown by, to make room for greatly improved vegetables. This is the last month that can be calculated upon for drying all the herbs required for winter. There are two opinions as to the period for gathering herbs. We recommend them to be gathered and dried before

blooming. We fancy that, although they want a little more care in the drying, they are in better flavour when full grown, but before they bloom, when they are full of sap; and we have always acted on it. Others think that you can hardly gather them too late, and say they keep better. This is very true, if both are served alike,—simply gathered, bunched, and hung up; for early gathered herbs would spoil, unless laid out to dry without heaping up, and bunched when they have nearly dried. Parsley and Fennel are the most difficult to preserve; the former is hardly necessary, but the latter is wanted long before it is to be had without forcing.

Leeks.—Earth up as you would Celery, but not quite so high.

Lettuce.—More may be sown at the beginning of the month, and all the sorts may be planted out, so long as there are any in the seed-bed.

Onions.—Those sown in July must be hoed out to give them room. The general crop must be pulled, if not already harvested. They receive no good in the ground when the leaves have turned colour. Let them lie a day or two on the soil to dry well. Sow a few Welsh Onions if omitted last month, or for a double chance of winter Onions, if you have already sown them.

Parsnips.—Pull what you want for use where they are thickest; it will do those that remain good, for they will continue growing some time yet.

Peas.—Clear off all those that have done bearing, and fill up the space with winter greens of some

sort—you have abundant choice in the remains of the seed or store beds. Keep the birds off those intended for seed, and see that the tall kinds now in bearing are properly supported with sticks.

Radishes of the turnip kind may be grown just as long as the gardener likes to sow them; but few care about them so late as this month's sowing would give a crop.

Savoy.—Plant out the last, if there be any still in the seed or store beds.

Sea Kale.—If you intend seeding these, keep them clear of weeds; and when they have done their work and the leaves begin to decay, cut them down and clean the ground. If you desire to propagate, make cuttings from the root; but we prefer seedlings. It is quite possible to improve this now popular vegetable; for, in a number of seedlings, we may find some more hardy and early than the rest, or larger, and in either case it would be well to propagate the improved sorts. There is scarcely a vegetable more popular or more obedient to the forcing process than this; and there should be some in every establishment.

Sorrel, now so useful in salads, should be parted for propagation, by the end of this month, or otherwise it must be deferred till the spring.

Spinach.—Sow another crop of winter Spinach, and hoe out the first crop if large enough; they should eventually be left full six inches apart. The difference between this and the summer Spinach, is that the former affords

leaves at all times for months together, while the latter is cut off, the whole plant at once, as soon as it is large enough. It is to the so-called winter Spinach we are indebted for all we get in March, April, and May, and the round-leaved or summer Spinach follows it all the rest of the season.

Turnips.—See that the last sown are well thinned out, and kept clear of weeds.

GENERAL REMARKS.

One of the most important duties of the gardener is never to let ground lie idle, unless for a specific purpose. Let worn-out crops be removed, and the ground be immediately dug or trenched, and if necessary dressed. Let no weeds grow in the paths or alleys. Keep the edges of the path clear and well defined; generally this is managed by planting something as an edging. In the

kitchen garden, Strawberries and Parsley are employed in this office; but even these must be kept in bounds. The Parsley should be kept trimmed, and not allowed to run to seed; and Strawberries should be deprived of all their runners and coarse discoloured leaves. Peas-haulm makes an excellent litter, and should be saved for that purpose if possible; but all the vegetation is as well burned and the ashes spread over the ground, as it is saved on the muck-heap to rot; with this point in favour of burning,—it destroys all the vermin and eggs of vermin.

Things in Season or in Store.

—Artichokes, Beans, Beetroot, Brocoli, Cabbage, Carrots, Cauliflowers, Celery, Endive, Eschallots, Garlic, Horseradish, Leeks, Lettuces, Mushrooms, Onions, Peas, Potatoes, Savoy, Spinach, Sprouts, Turnips.

THE ORCHARD AND FRUIT GARDEN.

THE Fruit Garden and Orchard want attention to the most gratifying part of the business, the gathering of the crops; and the most tedious part of our duties, the defeat and destruction of living enemies. Wasps, ants, flies, birds, earwigs, caterpillars, and a long list of other marauders, almost baffle the efforts of the gardener, and insist on dividing the crops with him. The means at command are various, but unless used with untiring perseverance are ineffectual. Birds must be shut out with netting, or scared away by

noise. Earwigs may be all destroyed by placing lengths of bean-stalks all about the trees and at the root, and twice a day blowing them into half a pailful or watering-pot full of salt and water, but it must be done in earnest, and with a regularity like that of the clock. Snails and slugs may be taken with cabbage-leaves laid on the ground, but they must be examined and cleared at least once a day. Ants must be traced to their nests, which must be covered a quarter of an inch thick with quicklime, and watered with a fine

rose. Wasps may be enticed into wide-mouthed bottles, hung in the neighbourhood of, but not among the fruit. These bottles should be half filled with beer and sugar; but if the nests can be found, light brimstone and tow at one of the openings. The other being covered with a net, put a quart of quicklime into a gallon of water in a watering-pot, and, while it is hot, pour it through the net into the nest; they will not trouble you again. As to caterpillars, they must be caught and killed.

Turning back, however, to the pleasant part of the business, fruit should be gathered on a dry day, and be as carefully laid in the baskets as if they were thin glass. The practice of dropping or throwing them in is destructive; however hard an apple or a pear may be, the slightest blow from even its own weight will cause that spot to rot, and it is not long in spreading. Most of the rotting of fruit is caused by apparently slight bruises, and very often by windy weather while on the trees. In storing them away, they ought to be laid singly on straw, with no second layer. They should lie in a cool place, and for a time be wiped dry two or three times a week. Of course this can only be done with very choice fruit, such as fine keeping pears and dessert apples. Wall-fruit should be gathered singly by hand without damaging the bloom, and be laid on moss, or some soft material, for its own weight on a hard substance would bruise it. Look over the wall-trees, and see that all the useful wood is made fast, that the wind may not break any of it; the longer branches that

look fruitful may be stopped with advantage.

Strawberries should be planted now, using the strongest of the runners; and where permanent beds are not required, the runners may be planted six inches apart in store beds. If Strawberries have been prepared for forcing by pegging the early runners down in pots, they may be cut off and repotted in six-inch pots of good strong soil, and placed where they can easily be watered in hot dry weather.

In Orchards, where the trees are old, advantage should be taken to prune off all dead wood, before the fall of the leaf makes all alike bare. Now, every dead twig on the whole tree can be seen, and it would be as well to cut below where it is dead, that nothing but healthy live wood may be left. If this were done in the spring or summer the wounds would bleed, but now there is no danger, though it is not a good time for general pruning. You might set any youth to this work if he can use a knife and small saw, for he has only one thing to mind, the dead wood.

It is a bad sign when the branches die at the extremities. The root has not enough nourishment for the whole, and this is most likely occasioned by the roots having reached the gravel or clay. In either case, if the fruit be choice, it will be well to dig down to the roots, and cut off any tap that goes down into the objectionable soil; give the roots some good soil all round, and in another month prune the head half away to compensate for the loss of root; the chances are in

favour of the life of the tree being prolonged, or its health established for a time at least.

Vines on walls must have their growing shoots for next year's fruit fastened as they advance, to prevent the wind from blowing them about and damaging them. It is necessary on account of their bruising the fruit when left hanging about loose. Do not allow any of the branches to shade the fruit; but avoid falling into a very common error, picking off leaves that shade it, because the leaves are of service; let the bunches take their chance in this matter; every leaf taken from the branch which holds the fruit does harm. Beyond attending to

this, the Vine only requires to be kept clear of side shoots. If you bag the grapes, let it be with the hexagonal net made in Nottingham; it scarcely excludes any light, but will keep out any insect. We have seen glasses to hang over favourite bunches. They may keep off a slight frost, but the frost that would injure a bunch of grapes would stop the Vine from doing it any more service, and check its growth altogether for the season.

Fruits in season or in store.—Apples, Cherries, Currants, Filberts, Mulberries, Nectarines, Nuts, Peaches, Pears, Plums, Raspberries, Strawberries, Walnuts.

THE NURSERY.

PROPAGATE by cuttings and layers all those trees, shrubs, and plants that are increased by those methods. In layering, spread out the branches all round the stool, and do not crowd them; better be content with a less number than have the layers too close to each other.

Prepare a piece of ground for planting stocks where they are to be worked, that you may be ready to plant when they have done growing.

All spare ground should be trenched or dug ready for transplanting all such stock as have grown close together; a large portion of the nursery stock in this kingdom is spoiled by growing too long in one place, or too close together. Where shrubs are nearly touching each other, it would be

profitable to dig out every alternate plant, and plant it elsewhere, leaving the others plenty of room to grow all round; whereas, if left another season, the lower portion would be spoiled.

Let some beds be made, four feet wide, and be trodden and raked, for the purpose of planting out young seedlings from their seed pans or seed beds, which small subjects it would be difficult to plant in loose ground, and they would not do so well. The beds will be none the worse for being rained on before they are used.

Next month is the most important for planting; but every preparation for it can be made now, especially getting ground ready for the reception of subjects in October, particularly those removed to give room.

PITS AND FRAMES.

Auriculas, already in their places and established after potting, must have as much air as possible in fine weather. Some yellow leaves may want picking off, and they should be all inspected, to see that the drain hole is open. Let none of the decayed leaves be dropped between the pots.

Azalea Indica will also be safer under such protection; for although they will stand a good deal of frost, it will cause them to cast their leaves and spoil their appearance.

Camellias that have stood out in the grounds should now be removed to the pits, that they may be covered at night; for there is no security against frosts sufficiently severe to make them cast their buds.

Carnations and *Piccolees*.—The layers taken off rooted must be potted in plain loam from rotted turfs, or, if this cannot be had, in maiden loam two-thirds, and leaf-mould one-third, which is the nearest imitation. Let there be a pair of plants in each pot, opposite to each other and close to the edge. Place them in a frame; give a good watering, and close the frame for a day or two.

Choice Verbenas, in the open ground, should be potted up now in pots suitable to the size of their roots, and be cut back to the size of the pot; for as they shoot out new growth they must supply cuttings for increase.

Cinerarias may be potted from their seed-pans, three in a four-

inch pot at equal distances round the edge. The old plants of approved sorts may be parted, if not done before, or, if they have been and have grown so as to touch each other, let them be potted off singly in three-inch pots.

Geraniums required for stock must be potted up from their out-of-door localities, and remain for a time in the frames.

Pansies intended for pot culture must be potted singly in three-inch pots. They are also useful to form beds with hereafter, if any be left on hand after the number intended for pot-culture is secured.

Pinks should be potted in the same stuff as *Carnations*, in three-inch pots singly, or four-inch pots with a pair; and place them also in the frame.

Polyanthuses and *Primroses*, to be grown in pots, must be potted singly in four-inch pots.

Seedlings of all kinds, that will hardly in their young state bear the winter, must be potted and brought into the frames until promoted to the greenhouse.

In fact, the frames will protect anything until the time they should be in the greenhouse; and all dwarf subjects in pots will do as well in the frames as in any other situation.

Seedlings of all kinds in pots should be no longer exposed to the chances of frost; for it will penetrate the sides of the pot and do a good deal of harm. Any seedlings in pans, whether of

hardy plants or not, are safer in the frames or pits than they would be out of doors. Many persons prefer autumn to spring for sowing Polyanthuses and Auriculas. In autumn sowing, the pans, or pots, or boxes, must be removed to the frame or pit; not only to protect them from frost, but also to enable us to regulate the quantity of water; for when seeds are once sown, they ought not to be allowed to dry. When they have once swelled and are afterwards dry again, the chances are greatly against their germinating at all. Many a seedsman gets blamed for bad seed, when the fault is in the grower; for they sow under favourable circumstances, with the ground damp and in good order to set the seed swelling directly, but three or four days' burning sun and drying winds, after they have swelled (and when as many days' favourable weather would have seen them all above ground), will destroy them; for they will be like malt; the germination will have commenced, and in that state

dried. With any delicate seeds it is better to cover the surface with damp moss, and not remove it till the seeds have shown themselves.

Pits and Frames are a sort of temporary barracks for everything they will hold, prior to placing them permanently in their winter quarters. Even Strawberry plants for forcing will gain more strength when not subject to the chilly nights; but in all cases the glasses must be taken off, or pulled back and tilted up on all fine days.

Some of the frames must be devoted to subjects for forcing; particularly to bulbs; but as this is more particularly mentioned in connexion with the forcing department, we need not go further into it now.

The kitchen garden must, however, borrow room for Cauliflowers to stand over the winter, and for salad herbs, lettuces, &c.; and the flower garden must beg a frame or two for violets, to be prepared for forcing, or to remain for later blooming.

THE FORCING GROUND, ETC.

Cucumbers and *Melons* are nearly the only subjects that require attention in this department. New hot-beds may be made to begin by the time the others leave off; fresh lining may help the old ones, and if you have pegged down some of the young branches as directed, they will be in excellent order to start with. One advantage in plants so raised is, that you know your sort, which, after

all is said and done, is more than you can say of seedling plants, for they will sport with all the care you can give in the saving of the seed. Make these new beds as directed, and treat them as you have treated the others. The plants in the old beds continue bearing, but not so well, and the new ones will bring in their fruit to follow those now going past their prime.

Figs that have ripened one crop will exhibit another, and after a moderate rest will go on again, and swell the fruit that is on them at almost every axil of a leaf.

Peaches, Nectarines, and Apricots, in houses to themselves, should be examined, pruned, tied, washed, and regulated, as if they were on the walls out of doors. The only difference is in the season for doing this. Presuming them to have had all the air as soon as their last fruit was gathered, they will have been ripening their wood, and will be the sooner ready to start again.

The *Vines* in all stages must be attended to as directed in former months, for even now you may have your *Vines* of different seasons. The earliest should be withdrawn from the house when the fruit is off, and be tied up outside to ripen the wood. The next and the next should follow in turn, and each at their proper season be returned to the house to begin its work again. In this way the same house may have four or five seasons of growth.

Vines in Pots are easily managed to give fruit pretty nearly the whole year. Some of those which were the first to fruit will have ripened their wood by this time, and may be top-dressed, pruned, and returned to the house.

Orchard Houses are simply fruit gardens under glass, and if there be no means of heating them, they do not fruit much earlier than those exposed on the walls. The treatment must be the same as that of wall-trees, and they need not be shut up after the fruit is off, until they begin to

swell their buds at the beginning of the year; indeed, the more backward they are kept the better. The only thing which the inventor (Mr. Rivers) proposed to accomplish by the use of orchard houses, so far as we understood him, was to protect them against those spring frosts which so frequently destroy our hopes, by closing them at night and keeping them closed while the frost lasted, and when judiciously planted with appropriate varieties, they are a sort of security against those total failures which all men occasionally experience with their fruit on exposed walls. It may be said, therefore, that these houses scarcely belong to the forcing department, but we have no other place to notice them, and so long as fruit is not grown naturally in the open ground, we must consider it forcing in a slight degree. They preserve the blooms from those checks which keep them back, and they hasten in some degree the swelling and ripening of the fruit. They are inexpensive, and form a wide contrast to the miserable and untenable structures called, forsooth, glass walls.

Perhaps there is no better opportunity than the present month affords, for cleaning, lime-whiting, and, if necessary, painting the houses, for this must occasionally be done, and there is little forcing going on now.

The tan-pit should be now looked to. Sifting the old tan and throwing out the small, and filling up the pit with enough new and fresh tan to give the whole body life and heat again, is but a short job, and should be done at the

most convenient time. Let the new and the old be well mixed together, and fill the pit up a foot higher than you ultimately want it, to allow for its settling down. Replace all the pots as soon as you can. If you act upon the Hamilton system of earthing up to the suckers, instead of detaching them and growing them up as successions, you will always have some fruit in several stages of growth, from the first showing to the ultimate ripening. If you grow succession plants, all that are likely to fruit must be shifted into larger pots and be plunged. The heat should be 60° to 65° at night, 70° to 75° by day. Use the syringe often, and shut up close immediately. Grapes in a Pine-pit, which is a very common occurrence, should be so managed as to be taken out when the Vine has done its work, that it may have its rest at the proper time to prepare it for its next summer's work.

The potted fruit-trees that have been turned out for their rest may want fresh potting, in pots a size larger; but this should not be done till they have made all their new wood, and during the time they are out of doors they should be well watered, for if neglected in that particular they will grow weakly.

Now is the time to prepare flowers for forcing, and to look up the various subjects intended to be forced. The Roses, and Americans, Lilacs, Almonds, and other subjects should be procured ready, and be placed in the pits and frames, whence they will be taken to the Greenhouse for the first step, and the Hothouse,

Vinery, or proper Forcing-house next.

FLOWERS.

Bulbs of all kinds are most important items in the list of flowers for forcing: Hyacinths, early Tulips, Narcissus, Amaryllis, more particularly Amaryllis formosissima, Crocuses. All these should be procured as soon as possible, and they may be potted or glassed during the month. The practice of burying them is very general, and taking them up as they are wanted. A good deal of this is useless. The great object is to keep them back till they are wanted for forcing; but to place them in the soil, that they may have the means of growing at the root. When they are kept out of ground they grow in the bulb, and will even make long shoots at the expense of the bulb itself, which thereby wastes its strength; but if kept cool and moderately moist, if the sun be kept off, and the bulb is in good soil, all the growth it makes is natural, and for a long time is confined to the root itself. We prefer putting all the pots in a cool pit, covered with a solid boarded top instead of glass, and to take them out a few at a time to succeed each other, but selecting from time to time those which are inclined to shoot; and when they all show symptoms of starting, substitute glass for the dark covering, that the shoot may at no time be colourless, as is the case when they are buried in tan or ashes. One great beauty in all these things is a dwarf, healthy foliage, and short stem, which when they have shot perhaps two inches

under tan or ashes, never become fine. The first few to be forced may be put into the Greenhouse at once, this month, to be followed by others in three weeks; and thus may a succession be kept up for several months. The Vanthol Tulips are the earliest, but not the best; nevertheless, there are five or six varieties that will all come in at once, and they should be put three in a four-inch pot, or five or six in a six-inch pot, a strong root in the middle, and four or five close to the edge. Crocuses may be half-a-dozen in a four-inch pot. Narcissuses are various. The large kinds, which bloom in bunches, may be single;

the smaller sorts, which throw up only one or two blooms, may be three in a pot. Jonquils and Campernals may be three in a four-inch pot, and when it is considered that if they are left in a cold frame, they will scarcely bloom before April, and some not till May, the advantage of being able to get some in bloom in the early part of December, and continuing a succession until that time, must be obvious.

Almost all kinds of flowers may be potted now, with a view to forcing; and the same may be said of Strawberries and several kinds of fruit, Roses, and many kinds of shrubs.

STOVE OR HOTHOUSE.

THE proper receptacle for tropical and other stove plants, although often the only house used for forcing, has its regular tenants, which must not be put about with impunity.

Achimenes, *Gloxineas*, and *Gesneras* require such very similar treatment, that they are not worth separating. When these have completed their task, and the foliage begins to change colour, abstain altogether from watering. Put them in a dry place, and eventually turn them on their sides and pack them one above another. Their bulbs, though very different, want to rest; and, when the foliage has quite decayed, they may be packed up on their sides under any of the tables or stages out of the way, until wanted in the beginning of the year; but so long as they con-

tinue blooming,—and some will for a considerable time,—let them alone; as, however, one after another drops off, turn them aside, and let them have no more water.

Eschinanthus.—These, properly speaking, are trailing plants; and, to grow them in character, they should be suspended in pots and hang down all round; the flowers then come right way upwards: but they are more frequently trained upwards, and look anything but natural. Those being suspended must be well attended as to watering, for they soon get dry.

Allemandas, *Echites*, *Ipomæas*, *Passifloras*, *Stephanotus*, and other climbing plants, want plenty of moisture so long as they are growing free; and their shoots must be directed as they advance: when, however, they have done bloom-

ing, they need not be excited any more.

Amaryllis.—As these indicate by the decaying of the tops of their leaves the completion of their growth for the season, they must no longer receive any water, but be allowed to dry off. So long, however, as the leaves continue green, they must be regularly supplied with moisture.

Brugmansias must be watered freely, and are, in all probability, in flower this month. If these are turned out in good health in the middle of June, they will flower well in the open air.

Clerodendrons.—These, for the most part past bloom, may be propagated by cuttings under a bell-glass in sandy peat, with a little tan; and the plant may be cut down, to break fresh for the next season.

Euphorbias want a good deal of attention to grow them handsome, especially *E. jaquinæflora*, which must be constantly stopped, and will often die back, in consequence of bleeding so much at the wound. *E. splendens* may be trimmed to any form, and naturally grows bushy.

Franciscea.—When these have done flowering, they may be pruned into form, much after the fashion of Roses; and the ends of the shoots so taken off may be struck in bottom heat, under a glass.

Gardenias should be grown in the hottest part of the house, where they can also have most moisture. Cuttings may be taken from all the shoots, and struck in bottom heat.

Ixoras require careful watering, plenty of heat and moisture, and near examination for the mealy-

bug, which will sometimes baffle all our endeavours if once it gets among the foot-stalks of the flower. Cuttings may be taken off and struck.

Poinsettia pulcherrima.—This plant, after blooming, should be pruned into a reasonable shape: it is only by continual stopping that it can be made to form a bush and give a few heads of bloom; and all these shoots may be cut back to two eyes as soon as the flower decays.

Rondeletia is naturally pendulous, and the best way to grow it is to encourage a tall shoot, and stop it when high enough to induce two or three shoots at the top. These, when shortened, will each send out two or three more; and thus we may get a head, of which the branches, when long enough, will hang down, and the blooms come in bunches at the ends. After bloom, they may be cut back to two or three eyes, and more branches will come for the next season. If any branch comes stronger than the rest, cut it back. *Rondeletia speciosa major* is the best, and has the largest flowers.

For the rest of the stove plants, and, in fact, for all stove plants, there must be heat and moisture; for if the house be allowed to chill, or get too dry, the red spider is sure to attack many of the plants. Besides the syringe, therefore, the floor must be frequently floated or the pipes watered, or both. The minimum heat at night should be 60°, and by day 70°.

All the seedling stove plants should be pricked out round the edges of pots; the young plants in pots should be shifted to pots of larger size. The specimen plants

should be examined, to see if they want it, and also to see whether they have proper drainage to keep the plants in health, which, whether pot-bound or water-logged, will be impaired. The stove should be lime-whitened wherever there are bricks. Plants at all unhealthy should be assisted with bottom heat, by plunging the pot in the tan.

Unless there be a Forcing-house,

you must prepare to make room for whatever requires forcing, which will now very soon begin; bearing in mind that things which require forcing will do very well in the heat of the house from 60° to 70°, and, under those circumstances, cannot injure the plants already there.

Keep the shelves, plants, and floor very clean, and allow no dead leaves to be about anywhere.

CONSERVATORY.

THERE is an abundance of fine flowers now for the Conservatory.

Annuals, in pots, about which we have said a good deal, should be ready to fill any vacancies made by the removal of things past their bloom.

Dahlias, in pots, are gay, and form an important feature.

Hollyhocks are equally elegant and diversified.

Many *Phloxes* and *Michaelmas Daisies* are worth a place in the most elegant Conservatory.

Roses, both standard and dwarf, are now in perfection, some of the finest varieties being full of bloom, and all the autumnal or constant flowerers being the most beautiful, have some of these in pots.

Every plant that has become untidy must be turned out, and its place filled by something else. *Verbenas* in pots, *Scarlet Gera-*

niums, late-sown *Asters* and *Stocks*, *Pansies*, *Mignonette*, plants out of the stove in flower, *Orange* and *Lemon trees*, the latest-sown *Balsams*, *Cockscombs*, and many other plants, contribute, to make the Conservatory very rich in flowers.

See that all the borders and beds inside are raked clean, all the dead leaves and petals of flowers removed, the paths cleaned if gravel, and washed if stone.

Regulate the climbing plants; prune such planted trees and shrubs as have become rambling too much.

Be prepared to get up the temperature, in case frost should threaten; and at this time of year a fire is necessary occasionally to dry the place: it will enable you to give air, of which the plants cannot have too much.

THE GREENHOUSE,

At present occupied by *Balsams*, or empty, must now be prepared to receive its usual plants, cleaned,

and, if necessary, painted; the walls lime-whited, the shelves and stages washed, the floor thoroughly

eleaned out and dried, which may be well done while empty, because the temperature may be raised and air let out at the top.

When this is properly done, let the plants which have been standing out of doors be brought in and placed properly, beginning with the larger Azaleas, and tender Rhododendrons, Acacias, Cytissus, Ceonothuses, Orange and Lemon Trees, Neriums, and others of the most unwieldy subjects, and then with the entire collection. Give them all room; for they must have light and air, which, if they are too crowded, is denied them. If there be any deficiency of plants, after calculating what will come from the Conservatory, fill up from the Pits; and if there be more than ought to be placed, then send them to be housed in one of the other structures.

Examine every plant as it comes in, to see if the drainage be clear, and whether it wants a shift; and if it does, have it done before it is set in its place,—it will save some labour and perhaps some plants, for the attention is a good deal taken off in the autumn by the many things which require to be done,—fruit-gathering and storing, for instance, consume a good deal of time; and if the plants be attended to when they necessarily go through your hands, it is a job soon got over. They will want no firing at first; but while the weather continues open let the House be open too, for they never can have too much air. Keep some room for things to be forced, and which must go into the Greenhouse as a preliminary step, before they are subjected to a higher temperature in the stove, &c.

HEATH STRUCTURES.

As the generality of Heaths do not suffer from a degree or two of frost, and this month is very likely to give it us, the only precaution necessary is, to shut up close at night. If there be a frost in the course of the night, and it lasts till the morning, artificial heat may be given without opening the House; it must be a very severe frost to penetrate the House and reach the plants; and a little heat in the morning will keep it out. If, however, the frost lasts, you must give great attention to the temperature, which ought not to be raised more than three or four degrees above freezing, if you can

help it; and, indeed, by day you can keep it down, by giving ventilation at the top, and air at the bottom;—the great difficulty is at night, when all is closed. In fine weather, the House must be thrown open as much as possible, for they cannot have too much air. All the plants ought now to be examined singly, to see if the drainage is free and the plant has pot room. If not, let both these points be attended to; for the less the plants are disturbed during the winter months the better. Plants that are growing up into specimens, even from the smallest, should be shifted as often as the roots fill

the pot; but as those of one sort and one age progress much the same, turning one out will guide you for the whole. In originally potting Heaths, the plant must never be sunk in the soil; and at every fresh potting you must bear this important point in mind,—rather raise it half an inch than lower it a shade, and the surface of the soil should be higher in the middle than on the side. Another point should be attended to; there must be room enough above the soil to hold sufficient water to saturate

the whole, otherwise one of two evils awaits you,—the plant does not get watered enough, or you must stand by while the first lot runs through. The former is fatal to the plant, the latter wastes a good deal of time; generally speaking, the collar of the root should be even with the top edge of the pot, and the soil gradually slope to the side, which should be considerably below it, so that by filling the pot to the brim there will be enough water to wet it all, and run through the bottom.

GERANIUM HOUSE.

HERE we must prepare for wintering the plants, small and great; and the first thing required is to see to proper repairs of glass, stages, and stands, and lime-whiting the brickwork; and, if necessary, painting the woodwork. The principal plants may be set in their places as soon as the house is properly dry and clean.

Let all the struck cuttings be potted singly in three-inch pots; and if they are to be made bushy plants, pinch out the tops as soon as their roots are well settled and the plants make a push.

Seedlings that have been pricked out, or potted off, as the case may be, should be potted singly; or if already in single pots, shifted, if they want it, before they are placed in winter-quarters.

As the larger plants break and make numerous shoots, rub off those which would grow inwards, and pinch the ends out of those growing too vigorously; in fact, it is the period in which we lay the

foundation for the future specimens. Let nothing grow that is not wanted; and stop those shoots that have gone far enough, and that you wish to throw out laterals.

Let the House be carefully closed early in the evening; and if the weather be doubtful, mat up the front: but rather have fire by daylight, when you can keep down the temperature by giving air, than at night, when the heat would draw the plants up weakly.

Never water as a matter of rule, but examine each plant to see if it requires moisture; for nothing should be watered until wanted.

If there be any seedlings or choice sorts that you wish to propagate, lose no time; take off all the cuttings you can, and start the plant into the propagating-house, as it will push faster there than it would in the Greenhouse. Let the cuttings be placed under a bell-glass, and wipe it out dry every morning.

In the event of frost, or even the threat of it, keep the house temperature up to 40°, and give air at all opportunities in mild, open, genial weather. The House should be shaded from the mid-day sun, which is often powerful in September.

WINDOW GARDENING.

WE must now begin to prepare for housing all tender subjects; and it would be well to take no trouble about things that are not worth it. Geraniums may, with care, be kept healthy all the winter; but be very careful not to give them water until they require it, for this would cause the leaves to drop or turn yellow; while by giving air at all opportunities, and never watering till they want it, they may be preserved in good health.

Again, plants never thrive so well in a room that is sometimes hot and sometimes cold; the changes will make Geraniums drop their leaves, and Camellias lose their buds. An even temperature is most essential.

Look out this month for Hyacinths, Narcissus, and other bulbs, for pots or open ground; some may be potted before the end of the month: choose them while there is plenty to select from. These bulbs are the most important of all plants for the window, because they will bloom even in bad situations. When these bulbs are potted, they may be placed anywhere out of the way for a time; but some may be put into glasses of water. By putting all the pots in the shade somewhere, and in the dark if you please, they do not progress very fast; but you may

bring half-a-dozen into the light, and take care that they do not lack moisture: these will be growing long before those in the dark; and when they have begun to grow, you may bring up more. The ordinary warmth of a room will bring forward Hyacinths, early Tulips, Crocuses, and Narcissus. In potting these, put the bulb just below the surface, only covered; and let the surface of the soil be an inch below the edge of the pot. They would bear to be much lower, if the pot were made deep on purpose, and the growth would be stronger for it; but in ordinary flower-pots they must not be much below the surface; and many put Hyacinths only half the bulb in the soil and half out.

Get all your plants together; and occupy all your windows, keeping the plants a little way from the glass as the winter comes on.

With regard to the other plants, such as Acacias, Heaths, and hard-wooded subjects, the greatest care must be taken to supply them with air and light. If they were turned out of doors every fine day, they would be all the better for it; and if there were a warm shower of rain, they would be benefited by having it all.

Let all the shifting be done before the plants are brought in.

OCTOBER.

PLEASURE GROUND AND SHRUBBERY.

THE business here always increases with the fall of the leaf, not only from the trees in the immediate vicinity, but from lofty ones at a distance; for the wind will carry them a long way. The mowing must not be neglected; for if it does not grow so long in the same time, it will get uneven; and if it be neglected now, or during the winter, the coarser grasses will get the upper hand. If you use a machine, it will cut off evenly a quarter of an inch; and while some of the grass may not have grown more, others will have grown two inches: hence the necessity of constant cutting, to keep all even. The verges, also, are very apt to spread into the gravel-walk, so as to disturb the outline; this must always be watched, and, if necessary, the edging-iron must be used instead of the shears. The gravel-walks must be cleared of weeds; and although the Shrubbery may be less frequented in these months than in summer, the greater caution is necessary as to its general condition. Nothing looks more desolate than a gravel-walk covered with leaves; which blacken and get trodden in, unless cleared off directly. In the borders of the Shrubbery and the clumps there may have been flowers and plants, the remains of which must be cleared away after blooming.

All the stakes and rubbish must be removed now, and the borders, beds, and clumps, cleared of everything that has done blooming. The Michaelmas Daisy, in all its varieties, many of the later Phloxes, and some Chrysanthemums, if such have been planted in the Shrubbery-borders, will be now in flower; and it is necessary to support them with sticks, against the winds of autumn, unless they are well protected by shelter.

If any extensive alterations are contemplated, they should be commenced as soon as convenient; for there is never too much fine weather for new ground work—sometimes extreme wet will interfere for weeks together. Laying down new turves, forming new beds and clumps, removing deciduous trees and shrubs, and taking away any that crowd better things, may all be advantageously done any time during the fine weather.

Laying out the Pleasure-ground is a very important task. The work belongs to the landscape-gardener; and although it is difficult to lay down rules for forming the design, there are certain principles which should govern every feature. The Pleasure-ground must be either uniform, with straight lines and angles, or it must be natural, without any straight line or angle; in short, it must be

either artificial or natural. There are those who prefer straight walks; others prefer landscape in which nature is closely imitated in the design. And there must be certain points attended to: for instance, if a road leading to a particular place deviates from a straight line, there must be an apparent cause; and as in a dead level, without any tree, water, or rock to interrupt it, there is no excuse for deviating, we must make one, by planting, or raising a mound, or digging for ornamental water, or erecting rockwork. But on level ground it is mostly done by planting—placing, in fact, natural obstacles as an excuse for the bend in the road. We never see straight roads or rivers in natural landscapes; and the art of landscape-gardening is to imitate the most beautiful effects to be found in uncultivated ground,—where roads wind round a wood, or a promontory, or a piece of water,—where a river or a brook meanders through a valley, and clumps of trees grow on its banks; and the more natural beauties can be introduced, in good keeping, the more perfect the work. If there be wood, and water, and rock upon a grand scale, so much the better; but beware of doing anything diminutive. A road must not be narrow because a space is limited; men, and carriages, and horses will not be smaller to match. A path intended for promenade must not be narrow because there is but little room to spare. No path in a pleasure-garden should be too narrow for two or three people to walk abreast. In a geometrical flower-garden, where the whole is to be viewed at a dis-

tance, you may have walks that only one can use at a time; but that is because the walks and the beds form a figure, to be looked upon from an eminence or a summer-house: but walks intended for use must allow of companionship. A main drive to a mansion should traverse nearly the whole space—that is to say, go round the whole park, if large,—lawn, if small; for such are the distinctions. The road should not be within sight of any unconcealed boundary; but it should go as near as it can be carried without exposing the limit. In some places it may be close to the belt, so that the belt, as such, is concealed. Clumps may be planted on either side of the road where they would be most effective; and these may be formed of distinct families or mixed shrubs and trees. One might comprise the different varieties of *Arbutus*, another *Hollies*, others *Firs*, *Acubas*, or any other evergreens. Clumps of deciduous trees and shrubs should be where they do not greatly interfere with the general feature, which, to be effective, should be evergreen. A black patch or two here and there is of little consequence; and these may comprise the best of deciduous plants—those, for instance, which bloom.

The finishing off and planting of the dressed ground may be deferred to the next month with advantage, when the season is late; but all trees may be removed when their leaves turn yellow and fall.

If a new place has to be laid out in Lawn and Shrubbery, and there are no trees, nor water, nor mounds, nor hollows of importance

enough to study, have the whole dug or trenched, levelled, and, if necessary, drained also; then have it rolled with a heavy roller. In laying out your road—presuming you are not an experienced gardener—have a long stout line, and lay it on the ground, walking backwards as you unroll it, and laying it as nearly as you can in the direction you think will be most effective. This may be a bungling way of doing it; but to those who are unaccustomed to pegging out a path or road, it simplifies their work; and they may alter it by walking along it, drawing a stick along it, and moving it outwards or inwards till they make the line form the inside or outside of their road; and when they have pleased themselves, they may put a peg in close to the line every three, or six, or more feet distant. They may then draw their line onwards, because it is no longer wanted where the pegs are driven, and go the whole length of their line, ranging its further progress with the work already pegged in. This way they may complete any length of road,—making every sweep of the road and every deviation harmonize. By this plan there is a great saving of trouble in pegging and altering pegs. For we have seen professional gardeners who were unsuccessful more than once before they finally pleased themselves. The next step is to lay a verge of turf close to these pegs, and thus permanently mark one side of the road. The pegs for the opposite side may be stuck in by measurement, no matter what the width is to be. Taking your rod in one hand, and being careful to lay it square, an as-

sistant can stick in the pegs as fast as you measure it: and when that is done, lay your other verge; and these two verges are not to be disturbed by any after business. The road should then be dug out the depth that is necessary, according to what is required of it. If it is to be a drive, it should be dug out from twelve to fourteen inches deep, and the soil wheeled or carted to where it is to be stored; or, if it be proposed to have a mound anywhere, let it be conveyed at once to its destination. In digging out the road, it may be begun at as many points as you have outlets for wheeling or carting. But it may be that the land is already grass before you commence laying out. In such case, it is better to mark the road, and dig it out, before you disturb anything but the turf on the space intended for the road; and cut that as soon as you have marked it out, roll up all that is fit to use as turves, and let the rough be carted away with the mould. When the road is dug out, rough stuff must be carted or wheeled in to fill it up,—brick rubbish, stones, flint, gravel, or granite,—to make a firm bottom; this will go down enough to make room for finer gravel at the top. In making a road before the surface is level, you must mind the level of the bottom, because it must be all of a depth after the surface is laid fair. Before you level the surface, cut off all the useful turf, and roll it up, to be laid down again, first mowing it as close as possible. In this latter mode of doing it, the verge is laid before any other, and the rest of the turf laid to it. When the road and the verge are done, mark out the

spaces intended for clumps, by laying down a single row of turves the shape it is to be, because the space to be planted will not have to be covered. Those who are accustomed to the work will only put pegs to mark the road and the clumps, and do all the heavy planting before a turf is laid. When turves are fresh laid, they should be beaten down close to the ground, that the roots of the grass may lay solid. But we shall go more fully into the planting in the operations for next Month; but we strongly recommend the plants to be chosen and marked,—all ready to take up when you are prepared for planting them immediately.

THE FLOWER GARDEN.

Anemones.—These very gay flowers are planted at two different seasons, October or November, and February or March, generally. The coarser sorts are planted in autumn, and the more delicate are inserted in the spring. They thrive best in loam from rotted turves, which, of course, contain nearly one-third of vegetable mould. The loam, however, should be clean and friable, of the sort usually found in good rich pastures. The tubers should be planted from two inches and a half to three inches deep, and the earth pressed solidly upon them; very strong tubers should be nine inches apart every way, in beds not more than four feet wide, that they may be reached; therefore, five rows will go well in a bed. These must be protected during frosts if double, but the single *Anemones* may take their chance.

Annuals, Hardy, may be sown now. Whether they come up and stand the whole winter, or in two or three months hence, they will precede the spring-sown ones a month or more. But it is not every *Annual* called hardy that is

hardy; nor will every one called tender be found so. If flower-borders are left, and not disturbed, it will be found that many of the seeds dropped from the plants will germinate, and that the plants will be much stronger than those sown by hand; some, however, are so short a time coming into bloom, that they would be too forward to stand the winter.

Annuals, Tender, have no business in the open ground, except those which, if the weather has been mild, will be still blooming; such as the last sowings of China Asters, Indian Pinks, Marigolds, Stocks, and even Balsams.

Auriculas grown on rock-work, in the borders, or in beds, will be liable to attacks from slugs and snails. These must be watched, caught, and destroyed.

Borders and Beds.—As the flowers decay, do not allow of large gaps, but be provided with dwarf evergreens in pots, with which to dress them; and this is very desirable where masses of *Annuals* have been flowered and have gone off. Geometrical gardens, in particular, require attention. It

is rarely worth while to take up either the Scarlet Geraniums or Verbenas, unless we really want them saved, because they frequently continue blooming, in a mild autumn, to a very late period. But when they are either cut down, or taken up, the space should be dressed for the winter, and potted plants of various evergreen shrubs ought to be provided. Young Coniferæ are appropriate. Laurustinus are excellent, for they will flower all the winter. Dwarf purposely-stunted *Pyrus Japonica*, which will give their coral flowers in some of the dreary months, Hollies, Box *Euonemus*, and especially the variegated Dwarf Red and White Mazerion, and many other plants interesting in the winter and early spring, afford us opportunities of dressing out a winter-garden as effectively, if not quite so brilliantly, as it is done in summer. The various subjects wanted to bloom in the borders the next season should be planted now, because the less anything is removed in later months, or even in spring, the better. Cut down and trim the things which have gone out of bloom, but which are to remain, so that the borders and beds may be neatly finished off.

Bulbs, &c.—Under this general name we comprise all that are used in borders; and towards the middle or end of this month all may be planted. They will do later; and for those who are dilatory we may repeat these directions for several months; but it must not be expected that those drying out of ground, until they begin to grow, can be so healthy and strong as others that have

the natural earth to assist them as soon as they start. Plant them, therefore, as soon as you please after the middle of the month, three inches deep. Narcissus, Crocuses, Early Tulips, Crown Imperials, Daffodils, Lilies,—all these are most effective when each patch is of one colour, though many prefer mixing. Crocuses may be half a dozen in a patch; Early Tulips also, though three will do; Narcissus three, Crown Imperials singly; and all these patches at such distances from each other as due regard for other subjects dictates. Put some kind of label to everything in a border that is likely to die down, for it is dangerous to trust to memory; at least, we have found it so in many cases. Things that we have made sure in our own mind we could not forget, have completely gone from memory, even in laying by seeds without a name; but in the matter of bulbs, which are to be left in the ground, the places ought to be marked.

Carnations and *Picotees* should be planted in beds, if they are to remain out all the winter, that we may the easier protect them with hoops and mats, or litter.

Chrysanthemums are now blooming; and the only attention they want is to support them against wind, and display them to the best advantage. Potted plants may be turned out wherever flower is wanted, for if the weather keeps mild they will bloom almost up to Christmas. Plants in pots out of doors want some assistance, so far as tying them is concerned, because the wind is often damaging to things unsupported; but the majority of plants

for show are, or should be, under glass. Those, however, intended for cut blooms are often grown well under a south wall; and there shading from the sun and protection from heavy rain are both necessary.

Clematis, and other climbing plants, want little more than careful fastening, that they do not get loose and damaged by the wind.

Dahlias should be all up and in winter-quarters before the month is out; but many people are so unwilling to lose the benefit of their flowers, that if the frost did not cut them down, they would be allowed to stand all the winter. But when the blooms begin to come less double, they ought to be first lifted to check their growing, and soon after taken up and stored, first cutting off the plant to within six inches of the collar, and next drying them with the stems downwards, that no moisture should remain in the hollow stem; for it will most likely rot the collar of the plant, whence the new shoots should come.

Fuchsias intended to remain out, should have a little loose litter round their stems to preserve the roots, in case the plant itself should be killed down to the ground; for they will break out each year stronger than the last, so long as the roots are preserved.

Gladiolus. — This beautiful flower, now frequently placed in borders half a dozen in a patch, may be planted, at the end of this month, three inches deep; not that the hole must be that depth, but that there should be three inches of soil above the top of

the bulb. These look most effective one sort in a patch, and three bulbs placed angular are enough; but in large borders there is no reason why there should not be five or six; it makes a more decided feature.

Hepaticas.—There is hardly a spring flower more effective than this. There are several varieties, red, blue, and white, single and double. They should be planted at once where they are to bloom.

Hollyhocks, if we are anxious for numbers, may be propagated from eyes; but the ordinary mode of striking side-shoots is generally adopted: any very choice ones may be taken up, parted, and these with portions of the root planted out; other shoots may be struck under a common hand-glass, or potted and put into a cold frame. The old root, if potted, will give many side-shoots during winter and early spring, and all of them will make good plants. Seedling *Hollyhocks* may be planted out where they are to bloom.

Hyacinths, if not potted and glassed last month, may be so disposed of all this month, and some defer it till November; but the earlier this is done the better, as well as the earlier the bloom. Potted ones may be kept back by placing them anywhere out of the influence of the sun and light. Many, as we have before observed, bury them in tan, ashes, or common soil, and bring them out a few at a time for forcing; but they are frequently spoiled, for they make shoots under ground, and the foliage is never so good as when they make all their upper growth in the light. Plunge the pots to the rim.

Narcissus in pots want the same treatment as *Hyacinths*. Keep them out of the light and heat. They want no forcing, but merely plunging the pots anywhere in the shade until they are wanted elsewhere. If planted in the open ground, they must be three inches deep.

Pansies.—All the struck-cuttings and seedlings should be planted in the bed six inches apart, or transferred to the frame-ground to be potted and kept in pots. The larger plants for propagation may be dug up and torn to pieces. Those which have roots may be planted out or potted at once. Those with no roots may be used as cuttings, and struck under a hand-glass.

Perennials.—Independently of the few that we mention more particularly, because grown in collections and named, there are many very beautiful, but of which there are few or no varieties named,—*Columbines*, *Sweet Williams*, *Dielytra Spectabilis*, *Scarlet Lychnis*, *Golden Rod*, *Delphiniums*, *Everlasting Peas*, and a hundred others perhaps. Many of these will grow for years in the same place, and spread very much. This is a good time to part them, and plant out the parts in beds, or where they are to bloom. Seedlings also, if not planted out before, should be got out now; most of the subjects want a foot of room.

Phloxes, of which now there are many varieties, should be parted and planted where they are to bloom, or in beds to grow into strength. Seedlings should also be planted out this month, if not done already. They can be

removed at any time; but it is better to allow seedlings to bloom altogether, for the convenience of examining them as they come out, and rejecting the useless ones.

Piccotees require the same treatment as *Carnations* in all respects.

Pinks should be placed where they are to winter it, whether it be in store-beds, six inches apart, or in pots for the frame-ground.

Polyanthuses and *Primroses*.—These suffer more from damp than anything. The ground must be cleared of dead leaves, bits of straw, and the ordinary accumulations of autumn; all the discoloured and dead leaves removed, and the soil smoothed under their leaves. This will also discover any lurking slug or snail; for there is no plant that offers a more tempting harbour, and this should frequently be done. Those intended to be potted for the winter, should be selected with single hearts, if possible, for they always throw up the strongest truss.

Ranunculuses may be planted the same way as *Anemones*; but we do not recommend the choice show varieties to be planted before February. Those planted now should be only what can be well spared.

Roses.—Our favourites, the continuous bloomers, are still giving flowers; but the ordinary summer *Roses*, whose leaves are turning yellow, may be removed anywhere. *Roses* may now be ordered or selected, for they will remove as soon as they turn colour. They will not suffer from being removed, even before they have done blooming; but we are all unwilling to lose a single *Rose*. All plants are

better for being entirely at rest when removed; and with some sorts the frost alone, and that a hard one, will stop them from flowering; but if we were buying in Roses, we should not stop for that, because a Rose gets so much pruning that it will do it no harm.

Tulips, Early, are seldom grown in beds; but they would make a very gorgeous appearance if well arranged for colour—about twelve sorts would be sufficient; and in planting there should be seven rows along the bed, so that each row across would contain seven. The rules to be observed are, *first*, to make the centre of each row the tallest; the others should be in pairs; the two next the centre should be alike, the two next but one should be alike, and the two outside ones alike: *second*, there should be no two together of the same colour; preserve contrast and uniformity all through the bed.

Tulips, Late.—This month all small offsets should be planted; they suffer by drying up if kept out too long. All those of which there are plenty, all mixtures that do not require arrangement, and all that are to be grown in the ordinary beds, may be got in at leisure; and the bulbs intended for the best bed should be examined in their boxes, and arranged or re-arranged according to the notes in your last year's book. Those which bloomed foul should be changed; and make other removals as you determined on when they were in bloom. In arranging a bed, the three classes of flowers should be uniformly disposed in rows of seven,—the same flowers in the first and

seventh, or outside, the same in the second and sixth, and the same in the third and fifth. As the three classes—Rose, Byblomen, and Bizarre—should read all down the middle, all down each of the seven long rows, and from the centre to the right, or on the left, they come in that uniform way. Let the three classes be represented by the figures 1, 2, and 3. The arrangement should stand thus,—

1	3	2	1	2	3	1
2	1	3	2	3	1	2
3	2	1	3	1	2	3
1	3	2	1	2	3	1
2	1	3	2	3	1	2
3	2	1	3	1	2	3

and so continue all down the bed, if there are fifty rows or a hundred. So much for classes; but for the sake of uniformity, let the same variety of Tulip be opposite as well as the same class, thus,—

Lac, Pom. Siam, Bla. Siam, Pom. Lac.

No matter how you diversify; but when there are the same varieties one side as the other, the whole bed harmonizes, and the colours are well balanced. All these should be arranged in the boxes, which are made full of partitions: seven in a row to hold the bulbs, exactly the same as they are to be put in the bed. You have all this month leisure time to complete these arrangements, and get ready for planting early next month. Plant all the offsets and general stock in the common beds as soon as you please, and also all breeders.

Wallflowers.—Plant out in beds, or where they are to flower.

Flowers in bloom.—Asters, rigolds, Stocks, and most likely all the bedding plants, if the season be mild, and late Annuals.

THE VEGETABLE GARDEN.

Artichokes, Jerusalem, may be taken up and stored in the same way as Potatoes.

Asparagus.—If the seed-berries are ripe, cut down all the plants close. Hoe and well clean the surface, which must be forked, but not deep enough to injure the roots. Then lay on two inches' thickness of dung; throw up an inch thickness of mould out of the alleys, and square the beds up neat and tidy. People who are anxious to make the most of the ground, will plant a row of cabbage between the beds. Young Asparagus in the seed-beds or store-beds should also have the stems cut down to the ground, and have a top dressing of dung. Asparagus being a sea-beach plant, will benefit from a good sowing of salt, before the dung is put on, or, in the absence of dung, enough to make the surface white; this should be done directly the soil has been forked. The seedling-beds will be none the worse for a sprinkle. The beds of three years' old grass, which is ready for forcing, only want the stems cut down, the earth in the alleys thrown up to thicken the soil above them a little; but as these may be wanted in frosty weather, the portion likely to be wanted first must be covered with litter, that the ground may not be frosted when the roots are to be dug up.

Beet Root should be taken up, and stored like Carrots.

Brocoli, like many other crops, only requires to be kept clear of weeds, the surface loosened, and earth drawn to the stems; if these have not been done, do them as soon as convenient.

Brussels Sprouts want much the same treatment; and no matter at what period, but when they are tall enough, cut off the heads for a splendid dish of greens: but except they are very forward, this is not likely to happen this month.

Cabbage.—There is no difficulty in dealing with this very useful vegetable—we can hardly sow it or plant it out at a wrong time; it is fit to eat when it has only four rough leaves, and good in all stations, from that to a hard heavy Cabbage. You may now plant out some of the strongest from the seed or store bed where they are to cabbage; but for family use, we should always plant them very thick to draw out for greens; say, plant them six inches apart in the rows, and the rows a foot apart; and all through the winter pull them for greens, first, every other row, and then every other plant; or, if they are a large sort, pull two of every three, which will leave the Cabbages eighteen inches one way, and two feet the other; but some plant them six inches in the row, nine inches from row

to row, and ultimately leave them eighteen inches apart every way. Those left in the seed-bed may be pricked out to get strength before the winter sets in, and they will be useful to plant out in January and February.

Carrots should be taken up and stored before they indicate the going off to seed, for they then become woody. When the outer leaves turn colour they do no more good in the ground. It is not safe to leave them after the middle of the month. They should be packed in sand. Sow a little seed in a warm border—though it is a chance crop.

Cauliflowers.—Plants that are strong enough may be placed under hand-glasses. They may be planted six or eight under one glass, not that they would come to perfection, but they would grow well for a time; and when sufficiently advanced, they may be reduced to five or three, and the plants taken out may be planted out in fives or threes to be covered with other glasses. This planting should be contrived so that the hand-glasses would be in rows, with enough space between them to place the empty glass, when it is necessary to leave the crop uncovered, and there should be room enough to walk between the rows. This may be done towards the end of the month. All the small plants may be planted four inches apart, in a common frame and glass, in the frame-ground; others, rather more robust, may be potted to go into the forcing department, where, after sundry shifts, they may be taken into the Houses. If there be no convenience of frame and glass, prick them out in a four-foot-wide bed in a warm cor-

ner, where they can be protected with hoops and mats through the winter. All through the winter these plants must be seldom watered; but they must not be allowed to get dry, for they would prematurely show a small button or flower, and be spoiled.

Celery.—Earth up, as usual, on dry days, as fast as the plants grow and require it, taking care that no soil gets into the heart of the plant.

Chives may be parted if wanted for increase; but it is so little used, that a few good stools are enough. They are a substitute for onions, but, except to flavour a salad, of little consequence.

Coleworts, or *Collards*.—Those who want these, and have them in the seed-bed, may plant them out six inches apart in rows a foot asunder; but they are not so good as young plants of the better sort of Cabbage.

Endive.—This must be blanched as it is wanted, some being covered up, or tied up every three or four days, that a succession may be ready; other plants may be put out in a warm border, which should be sloped to the south, for the double purpose of good drainage and warmth.

Herbs.—This is a good month to propagate herbs, by parting the roots in planting slips. Sage is always the better for parting; but most herbs will do well by parting, although nearly all will come well from seed the first year.

Horseradish.—This is not too early to plant Horseradish after the plan suggested in JANUARY.

Kale, *Scolich*, or *Borecole*.—Plant out any that may be left in the seed or store bed.

Kale, Sea.—Having done growing, cut off the decaying plants and earth up the roots; dig the alleys out, and pile the soil on the old stools, keeping the bank quite straight and neat on both sides, and six or eight inches above the crown of the roots, and leave the top flat and smooth.

Lettuces.—You may plant out some in a warm border, or in a sheltered situation, and sow seed of the hardy cabbage sorts for winter supply. We do not promise that all these will survive and brave the frosts, but the autumns and early winters are often very mild; and having the plants ready, there are many ways of protecting them, especially in the frame-ground.

Leeks.—These are improved by earthing up, as it blanches them higher and makes them tender. They are taken up as wanted, for they will not preserve out of the ground, like ripe onions.

Onions, for winter and spring use, should be cleared of weeds, but not be thinned out so much as it is done for summer growth. All we hope for in Onions, now young, is to pull a few for use in salads.

Parsnips.—Take up the whole crop at the end of the month, and pack them in sand in a cool dry place, away from the frost.

Potatoes.—Dig up the crops of ripe Potatoes, and house them where they will be dry and cool. Prepare the ground for some autumn-planted Potatoes, for they frequently answer better than those planted in the spring; but so long as a Potato does not spring at the eye, it matters not when it is planted. The failure of Po-

tato-crops often arises from the seed having grown before planting. The ground in which they are planted in autumn is not necessarily idle above.

Radishes may be continually sown where they are continually wanted, but they must be protected with litter, or otherwise, against frost.

Salad.—Under this head may be comprised all the small herbs in use for Salad, besides Lettuce, Endive, and Celery, which are staple articles, and will of themselves together, or separate, with the aid of Beet-root, make a Salad. Mustard, Cress, Rape, and Radish, may be continually sown and protected for use, by sowing them thickly in pots, pans, or boxes; they can be easily covered, or they may be placed in the dwelling-house. These vary a Salad, and when nothing else can be had, make a Salad. Then we have Corn Salad, Water and Land Cress, Sorrel, &c.; but all the small Salads should be continually sown in small quantities.

Spinach.—This must be properly thinned out; every plant ought to have almost a foot of room, for it will spread greatly. If they have been sown in drills a foot apart, they may be left eight inches apart in the row.

GENERAL REMARKS.

Many crops, highly speculative, may be sown in private gardens, where small quantities are appreciated, and a succession desirable, that nobody would risk on a large scale. Thus, Turnips and Onions, not one of which may survive the winter, might now be sown in

small quantities in warm situations, where means of protection are at hand. All the spent crops should be cleared away, and the ground dug, dressed, and left rough, or in ridges, for the benefit of winter frosts, or occupied at once, as the case may be. All crops will be benefited by running the hoe among them, loosening the surface, clearing off the weeds, and drawing earth to their stems. The walks or paths must be kept clean. Whatever plants may be left in the seed-beds may be used to fill up vacant spaces; but room must be left for a sowing of Peas and Broad-beans next month, and care must be taken that the same sort of crops do not follow. Some gardeners sow Peas and Beans this month, but November is quite soon enough. The stumps of Cabbages should never be wasted; but they may be removed to clear a piece of ground, and be planted in close rows wherever the room can be best spared. Turnips, also, after they have gone by for eating, may be put somewhere in close

rows, for they may give a few Turnip-greens when they are very useful; but it would be bad policy to let the remains of crops, nearly consumed, occupy the original space for the sake of a few Sprouts or Turnip-tops. The system of sowing a pinch of this, that, and the other seed for the chance of success, is good in private establishments; for if one thing fails another may hit, and the value of a bit of seed is hardly to be noticed. We have known people to sow a row of Peas every three weeks through the year, and the only ones that failed were the middle of August and the beginning of September. The others all yielded crops at some period.

THINGS IN SEASON OR IN STORE.

Brocoli, Beet, Cabbage, Cauliflower, Celery, Beans, Leeks, Onions, Parsnips, Carrots, Turnips, Savoy, Radishes, Salad Herbs, Lettuces, Spinach, Peas, Eschalots, Brussels Sprouts, Kale, all the Pot-herbs, Potatoes.

THE ORCHARD AND FRUIT-GARDEN.

ALTHOUGH pruning is generally delayed till the beginning of the year, we are advocates for pruning standard trees while the foliage tells us plainly which branches are alive and which are dead, because all dead wood should be cut away first; and we cannot too strongly recommend that the standard trees undergo as nice a pruning as those on a wall, beginning by taking off all the small wood that crowds the inside of the head, which in old

trees is often as thick as brushwood, and never bears. There is no difficulty in this, and you can better see what you are doing. Next cut off even the larger branches that grow inwards, and cross other branches, for that will open out the head still more. If there be then any portions of the head where the branches are too thick, thin them judiciously, by removing those that are most evidently in the way, keeping in view

the fact that you had better retain an ugly, healthy branch, than a handsome one that is cankering. When trees are very tall, it may be advisable to lower them; some trees would be the better for losing half their head, because, although all bear best at the top, the top may as well be half the height as out of reach. This applies to all standard fruit trees. It is light and air that conduces to the health and bearing of a tree; it is that which makes the top and the outside bear the best, and it is the partial absence of light and air which makes the inside wood bear little or nothing.

Apples and Pears should be gathered this month. To leave them longer on the trees would risk a frost that might endanger their keeping. We do not mean that they should be left till this month, because many even of the keeping sorts will be ready before. If, on trying a fruit, the pips have begun to colour, however slightly, the fruit is ready to be gathered; but better gather them this month, even if they do not indicate their fitness. Pears or apples frosted will decay before they are fit for table. Always gather in dry weather when the sun has been out some time: dampness is death to fruit. Lay them in straw, in a cool, dry room, where the frost cannot reach them; and in two or three days they will be wet on the surface: they must be wiped dry, and laid down again. They will require wiping dry as often and as long as they get damp; but when they have done sweating, they want no more wiping.

Apricots, Peaches, and Nectarines are by many gardeners unfastened

and supported away from the wall. This is done with a view of keeping the growth back, and thus avoiding an early bloom, to be cut off by the spring frosts; but the remedy is worse than the disease. Keep the sun off by a covering of bunting, or the net—so successfully used of late years—and there will be a later bloom. But most men are anxious to be early, and cover against frost, but allow the sun to do its best. Let the trees have all the benefit of the sun to ripen their wood; but a light covering should be adopted, when the buds begin to swell, sufficient to break the rays of the sun. However, for this month, let them all be exposed to the weather. Besides, there is a great objection to unnauling the trees, on the ground of economy—it causes a great deal of labour. We nail in all loose shoots, as a protection against the wind. There is no objection to removing any branches or shoots known to be useless; but we should not recommend a general pruning and nailing until next month.

Cherries and Plums on the wall may be looked over, and all the useful shoots fastened temporarily, that the wind may not damage them.

Currants and Gooseberries may remain till next month; but when the leaf has all disappeared, they may be planted. Yet, upon the whole, in most seasons, they may be left to themselves till November.

Espalier Trees want much about the same attention as those on a wall.

Medlars should be gathered, and laid by to rot, as soon as they

begin to drop their leaves. They must, however, be kept well wiped occasionally.

Raspberry Canes must be supported in case of high winds; but nothing else need be done till next month, when the old growth will have died down, and the wood of the canes for next year will have become more ripened.

Strawberries may be deprived of their discoloured leaves and runners, and the beds thoroughly cleared of weeds. Loosen the surface of the soil, and draw some of it to the plants. Prepare beds for strawberries, which may be planted at the end of the month: let the strongest plants, from runners taken off at the proper season, be used. Having dug and dressed the ground, tread it down moderately solid; then rake it level, and mark the rows with a line stretched lightly, and pat it down with the back of the spade. Let the rows be one foot apart, and four rows in a bed will occupy a four-foot width, leaving six inches outside. Between these beds have alleys eighteen inches wide; or, if ground is very scarce, a foot would do. Put the plants in a foot apart in the row, which will make them the same distance each way: use a dibble, and press the earth close to the roots. Shift all the runners that have been potted for forcing, and use six or eight-inch pots; if the latter, you may have as many as three plants in a pot; and let them be well attended to with regard to watering, until they are transferred to the forcing ground.

Planting, to any extent, is better left alone, perhaps. We do not object to a removal, if there be any point to be gained; but the

next month is the best in the whole year in most localities. But there is no objection to marking all the trees and bushes you want from the nursery, ready to take up when wanted. And so desirable is it to have them out of ground as short a time as possible, that we should have all the holes dug ready to receive them directly they are procured. The distances for Standard Apple, Pear, Plum, and Cherry trees to be planted should, if you have room, be from twenty to thirty feet apart; Dwarfs half the distance. Espalier and Wall-trees should be fifteen feet apart; although, in small gardens, the anxiety for variety induces people to plant closer. Dwarf and Espalier Apples should be grafted on Paradise stocks, which nurserymen are aware of, and will supply to order. In all cases, deal with respectable houses; and tell them what you want, what soil and situation they are to be planted in, and they will recommend you for the best. A respectable house has no object to serve in doing otherwise, because their stock contains everything. If you go to people of no standing, and limited stocks, they will too often make your order suit their list, instead of serving you with what will be of most service. For further directions on planting, see JANUARY.

Fruit in Season or in Stock, from out-of-doors.—Apples, Cherries, Filberts, Mulberries, Nuts, Nectarines, Peaches, Pears, Plums, and Medlars. Others may have been kept over their season; such as Currants (under mats), Raspberries (the double-bearing), Strawberries (the late sorts), and the small Wood Strawberry.

THE NURSERY.

IN the propagating department they will begin this month to put in *Cuttings* of most deciduous trees, that are hardy. Gooseberry and Currant trees are thus propagated; but the period for doing it is when they are pruned, which is most likely next month. Many other subjects, however, strike freely. *Cuttings* of Laurels and other Evergreens may be put in; some of the most delicate will strike freely under a hand-glass. *Cuttings* of last year, now rooted, should be planted out.

Layering is adopted with many subjects that are not so free, and it may be done this month. *Layering* is a simple process,—the shoots of the last year are bent down to the ground, notched at a joint which is pegged down under the surface, and there left to root. All the *Layers* of last year having now rooted, must be cut from the parent plant, all the stem below the root cut off clear, and then be planted in beds.

Acorns, Plums, and Cherry Stones may be sown and covered an inch and a half; sow them evenly, and not too thick.

All kinds of Nuts, Kernels, Pips, and Seeds of all hardy trees and shrubs, may be sown.

Berries of all kinds may be buried to prepare them for sowing; this particularly applies to Thorns, Roses, Hollies, &c.; they are generally buried in quantities, some depth, to rot the fleshy portion off, and sowed the next year; but we prefer sowing them at once, and letting them take their chance, where there is any quantity. When they are buried, they lay the whole year without vege-

tating. The only point in its favour is, that a large quantity lays in a small space.

Evergreens may be now removed from one place to another,—from the seed-bed to grow into strength; from store-beds, where they have grown till they touch, to give them more room; and from one compartment to another for change of soil or situation. Small plants may be potted, and the pots plunged for the convenience of moving, at any season, and especially to supply those who want them to dress the flower-beds in winter,—for they are of use when very small.

Seedling Plants, of almost every description, should be planted out in beds. Stocks for working the finer sorts of Rhododendron and Azalea, should be potted for the convenience of removing under glass.

Stocks for grafting and budding.—Let all the last year's layers of the Stocks be cut off, and planted at the proper distance for working; whether fruit, or fancy trees, or shrubs, standards or dwarfs, are to be the ultimate object, adapt the distances to the convenience of the workman and the growth of the subject. For Fruit Stocks, two-feet-and-a-half between the rows, and a foot in the row, will be found sufficient. Rose Stocks the same; and many of the fancy deciduous trees will require no more room.

Suckers of all sorts may be taken off with portions of root to them, and planted out to grow into strength. They may be shortened, or otherwise, according to their habit, and what they are required for.

Weeding and thoroughly cleaning the ground, in every department, should not be neglected.

PITS AND FRAMES.

EVERYTHING requiring protection must now be placed in winter-quarters. Whatever there is no room for in the Greenhouse must be consigned to the brick-pits, independently of those things which may be said to be at home there; and particular subjects must be properly disposed of.

Auriculas.—These will require but little water, but must not be allowed to flag; take off carefully the yellow leaves; see that the drainage is free; give all the air you can; shade them from very hot sun; and close them on the windward side when it blows easterly or northerly. Be careful of seedlings in the pan.

Carnations and *Picotees* must be now consigned to their frames, if it has not been already so arranged. They, like the *Auriculas*, must not be too wet, and the glasses should be off every mild day.

Bulbous Roots, in pots, usually buried in tan or ashes; but, intended for forcing, may be placed in a garden-frame, and be covered up from the light for a period. They will be wanted in the forcing-house a few at a time; but they may go on without interruption for a while. *Hyacinths*, *Narcissus*, *Early Tulips*, *Jonquils*, and *Crocuses*, may be all treated alike. They would be as well in the dark as the light till they begin to grow, however long that might be. They must not be allowed to get dry.

Many subjects are as well in pits as anywhere. *Rhododendrons*, *Azaleas*, *Camellias*, and *Heaths*, may have all the air in fine weather; anything short of a frost will

not hurt them, but nothing thrives with the east wind blowing on it; so that the chief object is to keep them from drying up and from damp, to provide against sudden change of temperature, and to lower them at night; and, however fine and warm a morning may be after a frost at night, to keep them covered the first two or three hours, for it is the thaw that hurts a thing, not the frost.

Pinks and *Pansies*.—The object of potting these is to be able to remove them at pleasure, to plant them out at any season. They are not wanted to grow fast; but as they are usually in small pots and single plants, they want more frequent watering than those in larger ones, and they cannot have too much air.

Polyanthuses and *Primroses* take more water. They must never be dry, for they would soon get the red spider. Look occasionally to the roots of these, and when they fill the pots, change them for larger ones. They must be shaded during the hottest sun in warm open days, but a mat thrown over is sufficient, and the light must be tilted all round.

Verbenas, *Cinerarias*, *Scarlet Geraniums*, and other greenhouse plants, must be carefully covered up against frost; for if that gets in, and freezes them, they will perhaps not recover.

Violets may be kept in pots in the cold frame until wanted out for forcing; but they must not be too frequently watered.

Prick out *Cauliflower* plants in frames to be protected through the winter.

THE FORCING GROUND, ETC.

Apricots may be plunged, in their pots, in the open ground at present. They must be selected with care for forcing; and according to the time they are wanted, must they remain in the open air, or be brought into the first house, which should be of ordinary greenhouse temperature. The same may be observed of

Cherries, Peaches, Nectarines, and Plums; all of which are presumed to have well ripened their wood after last year's forcing.

Cucumbers.—New hot-beds may be made, and some of the healthiest shoots of the favourite sorts of last year may be layered, to make plants by the time your new bed is ready to receive them. We need not repeat here how to make a hot-bed. There is a great advantage in having layers from a plant known to be true; for, besides the certainty of the sort, it will begin bearing sooner. You may consider whether it is worth while to fresh line the old hot-beds, or let them go on as they are, and depend on the new ones. For making hot-beds, the directions will be found in the hints for JANUARY.

Melons.—The beds may be lined to gain heat, because it is too late to begin planting now; but if a healthy shoot can be layered and struck, as well as that of the Cucumber, it will be like continuing the old plant. Still, it is very doubtful whether you would get any flavour in a melon in winter-time, even if you could get the fruit to swell.

Pine-Apples.—Look to the tan; and regulate the heat of the House to something like 80° by day: it will suit all the plants, which, in a private establishment, are in all stages. When you can, earth up the suckers on the old plants, that they may have the advantage of nourishment from the mother plant until the sucker is rooted. The fruiting is hastened half-a-year by this means.

Raspberries, Gooseberries, and Currants, may be forced as well as anything else; but this month nothing can be done but choose the plants, which should be, for Currants and Gooseberries, short and bushy, with well-ripened wood, such as has been potted on purpose; or you may pot such yourself. Raspberry Canes should be thick, but cut back to two feet in height.

Strawberries.—Keep the plants in a frame until you take the first into the houses: they are growing, therefore will want water occasionally. Let their first removal be to the greenhouse temperature, where they may remain two or three weeks; and when they are removed to the Forcing-house, others may take their place. At present, let them have all the air they can, and see that they do not flag for want of water. Merely close the frames against frost.

Vines, in pots, may be plunged as well as other fruits: the cold will hurt nothing till it begins to grow; but the earliest may be removed to the Greenhouse, to be followed by others.

VEGETABLES.

Asparagus.—You may make hot-beds ready for this vegetable, so that it may be ready for planting next month. Let there be five feet thickness of dung that will settle down to four, as the heat has to come through a good thickness of soil; and look out for good three-year-old plants that have not been worked, that your first batch may be set off the first week in next month. You may leave it one or two months longer, if you do not want it so early; but there is nothing more easily forced than *Asparagus*, unless it be *Sea-kale*. If you make the hot-bed this month, put six inches of good loam and dung, well incorporated, over the dung, covering the whole space inside and outside the frame, and then put on the frame and light. Allow a week for the heat to come through, and be ready to plant the first week in next month.

Potatoes.—Prepare a bed for these; but it need not be so hot as is requisite for *Asparagus*. Put on six inches of soil.

Rhubarb.—The forcing of this is so simple, that we have put the roots, without a grain of soil, under the stage of the stove, on the ground, and had it in perfection from Christmas to Midsummer. If the roots were put in a warm cupboard or cellar, without a pot, they would give plenty of produce; but if potted, whether it were put in the stove or any other place of warmth, it would, doubtless, be more prolific, and perhaps more handsome.

Sea-kale is usually forced in pots formed of an outside deep rim and

a cover; this rim is put over a plant in the ground, and the cover put on. The whole is then surrounded with stable-dung, quite hot; and when the *Kale* grows in the dark, it is completely blanched. Mr. Fry, of Lee, Kent, has improved upon this mode altogether. He has registered a pot, like an ordinary flower-pot, with a deep groove or gutter on the top of the rim. Into this groove fits the edge of an opaque cover, made of the same material. The *Kale* roots are potted in the ordinary way of plants, with the crown of the roots just below the surface, the cover put on, and it may then be placed in a stove or hot-bed, plunged in the tan of a Pinery, or, in fact, submitted to heat in any way; and when the plant has grown enough, the cover takes off, the *Kale* is cut, and the very nature of the contrivance ensures its sweetness. The advantage is in not being obliged to use stable-dung,—the plant not being a fixture, and the facility of moving it about anywhere that the heat is generated. Whether you adopt the new or the old plan, you may prepare your supply of dung, or you may procure the pots, and pot your plants ready. The new pot is not half so large as the old ones.

The present month is earlier than most people begin forcing anything; but there is no reason why you may not begin—French Beans, Peas, all the useful Herbs, or any other subject you please, just as recommended in JANUARY; and a reference to the month of JANUARY will be useful. You must plant Lettuces on some of the declining hot-beds, and sow seed of

Lettuce and Salad Herbs, Onions, &c., in others; but a severe frost takes off those out-of-doors.

FLOWERS.

Little can be done this month beyond preparing the various subjects for forcing. Look over the Roses forced last year; and see if they require a shift, which is likely enough. Prune them carefully, making allowance for the new growth: bring them to such shape as will ensure a good form of plant; remove all weakly shoots; thin out the plant; take away branches that grow inwards, and let them stand out-of-doors, or at

most in a cold frame, till you remove them to the House. Rhododendrons and Azaleas that have set their buds may be pruned so far as to remove any shoots that have no bloom-buds, and are not essential to the form of the plant. Give the preference to those plants that have been forced last year; and, when obliged to resort to new ones, pick out such as are of moderate size and full of bloom-buds. For further directions as to the proper subjects, consult the directions for JANUARY, always recollecting that you may begin now, if you please, as well as then, and observe the same hints.

STOVE OR HOTHOUSE.

HERE the routine will not be changed from last month materially.

Seedlings of all kinds must be pricked off into four-inch pots, round the sides of them, four, or six, or more in a pot. Those of other kinds that have been growing large enough in that way may be potted off one in a pot; a three-inch may be large enough. *Cuttings* that have been struck must be potted off; and all these changes require that the plants should be watered in their new situation, and shaded for a time.

All the plants in the House must be examined; and if either green-fly or mealy-bug have made their appearance, the plants must be cleared of them by means of soap and water, with sponge or brush, according to the places the enemy occupy. The red spider is a yet more fearful antagonist; for

it is harder to dislodge, and has done a good deal of mischief before it shows itself. The heat and moisture must be kept up, for it is often only a relaxation of this that brings our implacable little foes.

Seeds may be sown; *Cuttings* may be taken off, and struck under a hand-glass; and great attention must be paid to every plant in the want of water.

The plants not in bloom, and not resting, must be frequently syringed, and the House shut up full of steam. Let there be air given when the House is hottest.

Examine the balls of earth of any plant suspected of being pot-bound, and give new and larger pots to all whose roots have reached the side. Pinch the ends out of all the small plants wanted to be bushy, and check even the larger ones that are inclined to ramble out of shape.

Climbing plants must be directed to their places on their supporters, and not be allowed to hang about, or grow the wrong way.

Keep the shelves and floors very clean, by sweeping often, and, if necessary, washing them. Take

off all dead leaves from the plants. Stir up the surface mould in all the pots, and, if necessary, throw the loose out, and top-dress them with loam-peat and dung.

Keep the temperature up to 75—80° by day, and 60—65° by night.

CONSERVATORY.

ALL the departments of the garden must be laid under contribution for this show-house. The stove must furnish its share. The greenhouse must find some things; but the open ground must furnish its quota, if not checked by frost. Roses in pots form no second-rate feature, for the continuous blooming ones are in perfection. Dahlias in pots are showy. Cockscombs and Balsams do their part. Pansies in pots bloom well in autumn; and our wintery friend the Chrysanthemum produces a very striking effect; for it now presents such a diversity of colours and forms that nothing can surpass it.

All we can enjoin here, is to make the best of everything; let every specimen-plant be shown to advantage, and not be crowded. Remove everything that has passed its prime. Fork up and freshen the borders; stir the surface-earth in the pots and tubs; take off all dead blooms, branches, and leaves; mind that the petals of flowers and fallen leaves are removed daily from the shelves and floor. The climbing plants must be attended to on the pillars and roof; some that have nearly passed their bloom, may be thinned out with

advantage; others may be pruned to get rid of any portions that are untidy. Be careful about the watering of all those plants sunk in their pots, and see that the moisture goes down into the pot instead of being lost outside. The Pompon Chrysanthemums may be made quite a feature if plunged rather below the surface; and the hollow of the pot filled with moss; it answers a double purpose,—it ensures moisture in the right place, and prevents its evaporating so fast as it otherwise would. Move out all the blooming plants that have passed their prime, and look all round the houses and pits for gayer subjects; for the character of the Conservatory should be floral: but when flowers cannot be had in plenty, seek for handsome foliage, and some of the ferns will be useful in that department when grown in pots, as they should be, for a reserve. Look back to past months for further directions, and do what has been omitted to be done, unless the opportunity has gone by. Let all those plants which have ceased to be interesting be removed to their proper departments.—Give air in fine weather, and keep the glass clean.

THE GREENHOUSE.

STRICTLY speaking, the Greenhouse is a receptacle for everything that will not bear frost, but which does not require heat; and where there is no other convenience in an establishment, it is filled with choice subjects of that nature. Heath, Camellias, Geraniums, Fuchsias, and many other families, that in large concerns are grown in separate houses, are tenants of the ordinary Greenhouse, and the management must be more exact in proportion to the number of different subjects which it may have to house through the winter. We have been delighted in the country to witness the neatness, health, and beauty of the plants contained in a lady's Greenhouse, sometimes, and not unworthily, dignified by the name of a Conservatory. To see, as we have seen, the soft-wooded Geranium *Cineraria*, and *Mimulus*, side by side with the Heath, the Azalea, the Fuchsia, and the *Ereostemon*, and all in full health and fine condition, is a treat not to be had in larger establishments; yet it is a common sight among that interesting class of amateur gardeners, who have the one solitary house, that, like the cobbler's cellar, "served for bed-room, and parlour, and kitchen, and all;" and where is the grand secret of all this? Why, in daily attention to watering, airing, cleansing, and giving light; we have, it is here seen, Greenhouses very crowded;

but the House that is crowded at night, under a frost, is anything but crowded in fine weather: the pots are put out of doors to enjoy a mild shower or a little sunshine; and it is to them something like the poor man's holiday out of town, after steaming, and slaving, and choking in the unwholesome atmosphere of a manufactory. As we devote a separate apartment to some of the principal subjects, we merely look to general management here. Give all the air you can when the wind is not north or east, and give very little when it is. Give no water until the surface is quite dry, and then wet all the soil in a pot; examine all the plants likely to want shifting, and shift, if these pots are full of roots. Pot off struck cuttings; prick out seedlings; transfer all that have been growing till they are large enough round the edge of larger pots, to single pots of a proper size,—generally, a three-inch pot is large enough,—stir the surface of the soil wherever it appears hard or mossy, or run together; and cover, as a protection to the plants against frost, in preference to lighting a fire, which should only be done in fine weather, when the windows can be opened to get rid of the damp, which is the greatest enemy in winter. If any of the thousand and one enemies that infest plants pay a visit, fumigate with tobacco smoke.

HEATH STRUCTURES.

ALL these are so contrived that we can give as much air as if the plants were out of doors; we have only to direct that in mild weather the House cannot be too open. The examination of the roots, in all cases where they may have become crowded, should be duly attended to; and if they are so, let them be shifted, no matter how large the pot may be. If the roots are crowded they want room, and shifting into larger pots is the only way to supply it. Cuttings that have struck root may be potted off singly in three-inch pots; but we prefer putting several round the edges of larger pots, and allowing them to grow until they almost touch each other. Some that have been so treated are ready to go into single pots; others that have been growing in single pots want to go into larger. Avoid heat as long as you can keep frost out without it. In watering Heaths there is the greatest danger of inattention. If all plants absorbed moisture alike, there would be no further care wanted than to serve them all alike, but it is not so; every plant ought to be examined before it is watered, and if the surface of the

soil is damp, it should be missed. Be careful not to wet any blooms; for some are in flower at every time of the year. Cuttings may be taken off some of the species; for the only guide required for this, is to take cuttings whenever there are any to take, that is, whenever there are shoots in good condition; they are best struck in half-an-inch of silver sand, at the top of peat soil — the cuttings prepared with half-an-inch of stem from which the leaves have been stripped. Let the sand and soil be saturated with water, and stick the cuttings through the sand, so that the base will touch the soil, but not go into it. Cover with a bell glass, and wipe it out dry daily. These cuttings must be put into the shady part of the House, and must not be allowed to get dry, or they will go off instead of striking root. The proper condition for a cutting, is a new shoot an inch long from the base, half to be in the soil and half out. Always close at sunset this time of the year; and if there be any indication of frost, cover with mats in preference to lighting fires, for the Heath never does well in artificial heat.

GERANIUM HOUSE.

THIS favourite plant is growing all the winter; and as they are produced for exhibition, they require constant attention. As they push out their shoots, they are rubbed off where they are not wanted,

the ends pinched off where they are growing too fast; and they are also stopped where lateral branches are required. They require to be shifted as soon as their roots reach the side of the pot; and the change

must not be too great. They want light and air; but the temperature is kept higher than that of a Greenhouse, because they have a good deal to do in the winter. The plants cut back to a skeleton in July and August are made to clothe themselves and be covered with bloom in May and June; but, during the present month, they do not want much more than guiding into shape. Seedling-plants may require a shift, but ought not to be shortened; they should be allowed to grow in their natural way as the only means of showing us their true habit; not a shoot should be rubbed off, or stopped. Cuttings that have struck root well should be potted off into three-inch pots; plants of larger size, shifted. These plants make excellent standards

if properly grown; but, for this, a straight free-growing cutting is selected, and as it grows, the seed-shoots are rubbed off, and nothing allowed to grow but the upper end of the shoot until it is as tall as required; then, for the first time, pinch out the heart, and it will induce lateral shoots near the top; all that come low down must be removed, but those that come near the top will be allowed to form the head. When these have grown a bit, pinch out the ends, and each will give two or three lateral shoots; and this pinching out and stopping goes on till you think you have branches enough to form a good head. Be careful in watering all the plants; give none, except the surface be dry. Give air in very mild weather; and close when the wind is east.

CAMELLIA HOUSE.

HERE there is nothing to do but to give room and air in fine weather, and look to the watering, which, like every other operation in gardening, requires more attention than labour, and the one serves the other. When the buds are swelling, and the plant is a large one,

it will want more frequent watering than those which are apparently on the standstill. Some may require a shift, but we do not like shifting Camellias full of bloom-buds: they frequently drop all their buds, or set off growing again instead of blooming.

WINDOW GARDENING.

THE management of plants in dwelling-houses is, or rather should be, the same as that of those in a Greenhouse, but there is one great disadvantage to plants;—the pots always stand in saucers, and when watered, the stagnant overplus

which remains does much mischief. Our constant caution, therefore, is to throw out the water that drains through, and on no account to let any remain. We once suggested a plan for a flower-pot to stand on, the common saucers to keep

up the bottom of the pot, and also a plan for saucers in which the old-fashioned pots would do. They were made by a potter named Hunt, at Pimlico, and had a great run,—the principal objection to them was the price. They answered exceedingly well; the pot had feet to keep the drain hole above the water in a common saucer, and the saucers for common pots had a flat rim inside, on which a plain-bottomed pot would stand and be above the water. The plants that will do for windows are very plainly set out in the former directions, to which we may refer, and merely here repeat our caution not to kill plants with kindness,—not to water them too often, nor, on the other hand, to keep them too long without; never give them a little, but water them till the moisture runs through; little and often will soon kill a plant; give a good soak when you give any, but give none while the surface of the soil is damp. In hard frost the plants should not be left at the window, but should be brought more into the middle of the room.

Succulents.—We have already alluded to this family of plants, as the best for Window Gardening. We have known the Aloe tribe to live twenty years in a cottage window; and what was once in a small pot not more than three inches across, to occupy an eight-inch pot, and, with its offsets, to completely fill it. This was the kind called Partridge-breasted; but there were others not much younger, and in all respects as healthy. But there are many Succulents that thrive in confined situations; and the only evil that

can befall them is an excess of water.

Bulbs of all kinds have been profiting at the root, if they were planted last month, and they will bear a good deal of water. Hyacinths in glasses have commenced shooting down their roots; and those in pots have not been idle, though they do not show yet. Let only those that you want to be very early be brought into the room and to the light; others that you want to keep back for succession may be in the cellar, or in the open air, or anywhere in the dark and cold.

Crocuses and *Early Tulips* will, perhaps, be more forward than the Hyacinths; but the instant they shoot through the ground, let them have all the light you can give them.

Hardy Perennials are not bad winter companions. There is hardly a plant more adapted to the window or house gardening than the Double Golden Wall-flower.

There is no better month in the year for choosing the plants that we propose to grow in the house during the winter months.

Take care that all the plants are properly shifted, before you attempt to keep them in the house.

Hydrangias are showy plants when in bloom; but they are not very smart in winter. If, therefore, you have these, they need not be in the best light, nor the most conspicuous place, until they begin to grow.

The old-fashioned *Myrtle*, one of the best evergreens of the whole Greenhouse tribe, will always look well in winter, and should never be neglected.

NOVEMBER.

PLEASURE GROUND AND SHRUBBERY.

WHAT may be done before, and however much may have to be done after, this is the month for laying out and improving gardens; and if the weather be favourable, not one opportunity should be lost. It is the month of all others for choosing shrubs and trees; for their buds are all set, their summer growth is complete, and the plants are at rest. The sun is not too hot, and all that can be now planted gets the advantage of the winter rains to settle them down in their places. Box-edgings made now have everything in their favour; and, generally speaking, all the planting and turf-laying done in November does well. Now, therefore, is the time to carefully survey all the plantations of an establishment. See what plants, trees, and shrubs are ugly, or out of place, and remove them; observe where they are too crowded, and re-plant those portions. Take the shrubs or trees carefully up, and put two where there were three; or it may be that by taking out one here and there, you can thin them without disturbing the remainder. Contrive, if possible, to place evergreens in the foreground to hide the stems of deciduous trees, and conceal as much of deciduous shrubs as are unsightly. In making new plantations, be choice of the subjects, for much may be done to increase or mar the effect by attention or inattention in that particular. It is only by bearing all the best things in mind, that we can do the best for shrubberies. The principal deciduous trees should be those that bloom conspicuously. In a Shrubbery all things should be choice; in a broad belt of plantation we should rely chiefly on the diversity in the foliage. Among the favourites of the former, we may reckon on Thorns, of which there are many varieties. The Scarlet Chestnut is a noble tree, and, when it attains a good size, is a splendid object. The ordinary Horse-chestnut is adapted for only such places as give plenty of room. There is also the Yellow Laburnum, which is a beautiful object in spring: almond, with blossoms of pink; Althea Frutix, which blooms with flowers like a single Hollyhock; Azaleas, of which there are scores of varieties and many colours—but the Ponticum Major, large Yellow Coccinea Major, large Scarlet and Aurantia Major, large Orange, are the most conspicuous; Barberry, with graceful racemes of yellow flowers; Broom, of which the white is the most useful; Syringa, white blossoms and fragrant; Honeysuckle, a lovely and fragrant plant; Jasmine, white and yellow; Lilac, the white and rosy flowers,—the Persian

is the best; Robinia, a sort of Acacia, several varieties; Magnolias, purple and white; Mazarian, white and red; Cherry, double-blossomed, very fine white; Cytissus, several varieties; Guelder Rose, with white balls of flowers; Mespilus, white bloom; Pear-tree, double flowers; Roses, of all colours; Pyrus Japonica, with bright crimson coral flowers; Pyrus Spectabilis, white; Ribes Sanguinea, &c., all of them useful in planting. To Evergreens there is scarcely a limit; all the fir tribe, of which there are many distinct families: Araucarias, Arbor Vitæ, several varieties; Arbutus, several; Cedars, Cypress, Holly, very many handsome varieties; Magnolias, Laurels, common and Portugal; Oaks, Yews, Alaternus, Euonymus, Juniper, Kalmia, Laurestinus, Bay, Phillyrea, Rhododendron, Savin, Pyracantha, Ivy, and others, give such infinite variety of foliage, independently of some of their splendid flowers, that clumps may be formed of large size, without using two families of plants. Most of the genera comprise many

species and numberless varieties. As to the operation of Planting, there is ample instruction in the directions for JANUARY; and all that can be learned from that may be practised upon now, and the sooner it be all done, provided the weather be favourable, the better for the plants. The Lawn must be kept well mowed, and clear from the fallen leaf; for otherwise it will soon be discoloured. Turf may be laid with advantage, and it is the best time to repair lawns and verges. Use the edging-knife to cut the edges smooth, to take off all encroachments on the borders, or on the walks and roads. In short, all that is recommended to be done in January can be better done now, and with a certainty of success; for there is nothing in which "delays are dangerous" to the extent they are in gardening, and especially in alterations and planting.

Shrubs and Trees in flower.—

Roses, Honeysuckles, Laurustinus, Passion-flower, Arbutus, and Pyracantha, and the various Thorns show their fruit.

THE FLOWER GARDEN.

Alpines.—These require, for the most part, to be in dry situations. Some will do well on raised borders, others do better in rock-work; and this may be formed with or without water at the base, but the style of the rock must be varied accordingly. If there be no water, the rock should be such as we find in many parts of the country inland—rough and

in fragments; if with water, it should be in large masses. In the former, the Alpines and other appropriate plants may be growing in all the interstices; in the latter, there must be a series of ledges on which they must chiefly rest. On the north side, Ferns, Lycopodiums, and Mosses, will thrive where many Alpines would not. In building rock-work, holes

must be left with proper drainage. These must be filled with soil, according as required for the particular plants. An authority, which may be quoted, recommends:—

“On the north side of the rockery, in one part a mixture of black peat or bog mould, leaf mould, and sandy loam; in another, red gravelly or ferruginous soil; and along the base on this side an adhesive or clayey kind. In these varieties of soil, the larger Ferns, *Osmunda Regalea* and *Alpines*, *Adoxa*, *Chrysosplenium*, *Marchantia*, &c., can be grown. On the south and two ends, a mixture of light sandy loam and peat, containing a good deal of white sand, for *Helianthemum*, *Iberis*, *Stachys Corsica*, *Achillea Tomentosa*, *Saxifrage*, &c.”—*Lothian on Alpines*.

The drainage of all the holes which are to supply the place of pots must be provided for by the same means—corks. The planting of *Alpines* is like planting anything else: there is no mystery—it is the same as potting, only that your pot is a fixture, and not so easily handled. As to the choice of *Alpines*, the species and varieties are endless, and the way to choose them is to see them. The greater part of them require to be dry and cool all the winter, but not frozen: the cold frame is their proper quarter now,—air on fine days.

Alysson.—Any of the varieties may be parted and planted out.

Annuals, sown in the autumn months, and come up perhaps too thick, must be thinned to give them room. They cannot survive the winter if crowded, for they

will draw and grow weakly. *Stocks* and *Mignonette*, and especially intermediate *Stocks*, should be potted and transferred to the frame-ground.

Arabis.—Some of the species make excellent edgings to beds and borders; and this is a good month to part and transplant them. The white is especially an excellent edging, but spreads rapidly, and on that account excellent for the edging of a roadway, under trees or near them, and far better than a green verge. Replanted annually, it is very pretty as an edging to broad gravel-walks in gardens.

Asters.—The perennial kinds nearly all bloom in the autumn, and some of them late. After flowering, divide them, and plant out the pieces in store-beds, or where they are to bloom.

Auriculas in the borders must be kept clear of weeds and of any other plants likely to overrun them.

Azaleas.—If any of these are used in the flower garden, this is the best time to move them, although, if they have large balls, you may remove them with impunity at any time, even while in bloom.

Beds.—These may, if the season has been open and mild, still have flowers in them; but such as have gone by may be cleared and planted with bulbs or evergreens, paying the same attention to uniformity as was recommended for bedding out. Those beds which answer to each other should be planted alike, not necessarily with one sort of evergreen, because, if preferred, there may be a diversity of shrubs in each bed, but they must be diver-

sified alike. If planted with bulbs, they must be planted similarly: it is not enough to have them nominally of the same colour, they must be the same subjects, that they may be the same height, the same season, and be thus uniform. If yellow, it would not do to have one Yellow Tulips, another Yellow Crocuses, and a third Yellow Narcissus; but they must be all three formed alike. If they were all planted with Yellow Crocuses at the edge, Yellow Tulips next, and Yellow Narcissus in the middle, they would be all alike for our purpose; but if each had its separate flowers, they would be unlike in height, colour, and season. Bear these things in mind, and carry out the intention without swerving; for uniformity is so essential, that bare beds would be preferable to odds and ends, some in bloom and some not, the whole season through.

Borders.—If there be any remains of flower-stems, or of plants gone by their flowering, let them be cut down, trimmed up, or removed altogether, according to their nature. There is no excuse for retaining a single untidy subject. If there be any large vacancies made by removals, let them be occupied with bulbs, which should be planted without delay, or filled up with dwarf evergreens of the various kinds as early flowering shrubs. The Laurustinus is a beautiful winter ornament. Dwarf Pyrus Japonica, well grown for their business, will bloom very early in the spring, and are not ugly objects before they flower. As, however, it is desirable to remove these to make room for bedding plants in

the spring and early summer, they had all better be sunk in pots. Let the heights be according to their position in the borders—the tallest behind, the shortest in front. If the borders require dressing, a quantity of rotten dung can be spread all over equally, to be forked or washed in by the winter rains. The box or other edgings must be repaired where there are any gaps. New edgings may be made.

Bulbs.—Attend to last month's directions, until all are carried out.

Campanulas.—All the perennial kinds should be planted out this month where they are to bloom. The C. Pyramidalis, or Chimney Campanula, should be potted and sent to the cold frames. Seedlings of all the hardy kinds should also be planted out before the month is over, although they will remove at any time before they rise for bloom. Canterbury Bells, the biennial kind of Campanula, should be planted out, if not done already. Those that have done flowering, and there are very few which have not long since, and ought to have been cut down, unless the seed was required, should be trimmed now.

Carnations in the open ground are very liable to damage from slugs, snails, and the like. They must be frequently examined, and upon the least appearance of mischief the depredators must be sought until found, for a whole collection would soon be sacrificed if the first intruder is left.

Chrysanthemums.—If the weather has been mild, these are still blooming well. Let the tall ones in the border be supported

judiciously,—not tied in a bundle round a stake, so that the blooms are smothered, but carefully tied out with several stakes, so that the flowers may not be crowded, and the head of bloom may be shown to advantage. If a few of the potted plants be sunk next a wall, the plants may be trained out like a fruit-tree, and the blooms will sometimes last well long after those exposed to the winds have gone off.

Clematis.—The *Azurea Grandiflora* must be nailed close to whatever wall it is growing on; and none of the ends suffered to be blown about by the wind. The common *Clematis* is far more robust, grows wilder, and bears rough usage better; but, nevertheless, the fastenings must be looked to. *C. Sibbaldii* is much the same as the former.

Crocuses come under the head of Bulbs, and are treated of fully in last month's Calendar.

Cyclamens.—The hardy ones may be now planted in beds on borders that are well drained, not more than an inch below the surface.

Dahlias should be in their winter-quarters by this time. The most simple way of keeping them is to hang them up on nails, previously numbered from one upwards to any number the stock or collection may reach, as each nail would, if necessary, hold a dozen. You see at a glance what stock you have of each, and it saves a world of trouble, when you have to seek one, if the numbers run consecutively, and you can go at once to the spot. The numbers must be plain, and above the nail.

Fuchsias in the open ground may be still blooming; and when frosted and stopped for the season, it will be time enough to disturb them, by cutting back, or covering up, or any other contrivance.

Gladiolus.—These may be planted in good rich ground, if not done last month, either in beds or groups, according to their colour.

Hepaticas.—If not done last month, plant them where they are to bloom.

Hollyhocks by this time should be cut down; and if they have made growth, they may be parted as directed last month, and potted off or planted out. If very choice, the principal root should be potted to winter in frames, or propagate for increase as offsets grow; but it should have been done last month.

Honeysuckle.—Carry out the directions of last month, if not attended to already, until all are fulfilled.

Hyacinths, like most other bulbs, being procured early, may be planted as soon as possible after their arrival, or potted off or glassed in winter. Let them be put in the cool, out of reach of frost and heat. The object of this is to let them make root when inclined, but not to grow any until wanted; when they may be forced in the regular way.

Jasmines already covering a house or a wall, must be looked over, if not already fastened, and all the loose branches made secure.

Narcissus, among the most important of early flowering bulbs, should be planted this month if

possible; not that they take much harm for a few weeks, but that they are perceptibly worse from the moment they indicate growth if not in the ground.

Pansies in beds want but little help, except in severe frost; and they are greatly benefited then by hooping over and matting, or by covering at night with loose litter, which should be removed in the morning, unless frosty weather has set in. All that are not intended to remain in the ground all the winter, should be potted and transferred to the frame ground.

Perennials generally will require the same treatment. None but the hardy ones should be used in the open beds and borders, except as bedding plants are—that is, put out when the winter has passed, and either left to be cut off, or, if choice, potted up before the frost. The few that are mentioned have become more popular than the others; but all that it is desirable to increase must be treated pretty nearly alike.

Phloxes, if not already parted, should be separated without delay, and all the parts planted where they are to remain; or, if very choice, potted for the convenience of protection and propagation all the winter.

Pinks are a general favourite as a popular florist's flower; but they have been, or should have been, all planted out or potted before this. However, better late than never: they want much the same protection as *Pansies*; both will stand ordinary winters, but severe ones kill a good many if unprotected.

Polyanthuses and *Primroses*.—

These may be treated as directed last month.

Ranunculuses may be planted, but we should only plant what we could well spare, or the more plentiful kinds. There is a risk in autumn-planting, unless they are carefully protected. The planting may be done the same as it is in February.

Roses.—As we are now liable to high winds, and the heads of Tree *Roses* have grown large and heavy, it will be well to shorten all the long branches, and to cut away altogether all the weakly ones. The wind will have much less power over them. Many tender *Roses* would be safer if protected; but it is so difficult, and withal so unsightly, that we prefer taking them up carefully, and putting them in by the heels in an outhouse or a well-sheltered corner, where, in addition, we can throw a mat or litter over them during frost. The practice of putting hay-bands round the stock is ridiculous. We all know that no amount of cold will touch the common briar upon which *Roses* are worked, therefore it is only the head that wants protection. We have seen bags drawn over the heads, moss stuffed between and all round the branches, but we prefer allowing them to take their chance, or taking them up in the fall, and planting them out again in spring. This is a good month to plant *Roses*, if they have had a check by frost, and dropped their leaves, or if their wood is ripe.

Tulips.—Plant your best beds within the first fortnight. Level the surface, mark out your lines, and lay the bulbs in their places,

pressing them into the ground far enough to hold them upright. When the bed is all planted, sift or shake on three inches of mould above the tops of the Tulips on the sides, and four inches on the middle. To guide you in this, stick up some pieces of wood the height the soil ought to reach in different parts of the bed. Some growers adopt an excellent plan: three inches of the side and end boards come off, and the soil is struck level with the remainder. When the bulbs are all placed, put on the boards, and there can be no better guide for filling up. Make the surface a little rising in the middle, and quite flush with the board on the sides, and the thing will be complete. As to the arrangement, we have already described the best. Seed may be sown in pans, and protected from heavy showers that would wash them out. They must be covered but lightly, for the seed rises on the top of the young plants, and if deep, might rot. Those who sow in spring do not cover at all, except with wet moss to keep them from drying.

Violets may share the fate of all other spreading perennials,—be parted and planted out, or potted.

Wallflowers and *Sweetwilliams* may be planted out in beds, or where they are to grow in borders, unless forward and planted out already: but these are oftener too forward than too late; and when too forward, suffer considerably in a trying winter.

GENERAL REMARKS.

The Flower Garden, if a little neglected, looks more deplorable

in November than any month in the year. The plants which have not done blooming are untidy, unless neatly trimmed as they go on; but we are strong advocates for dressing the vacant spaces with shrubs. The *Laurustinus*, well grown in pots, are strikingly beautiful from now till spring. *Andromeda Floribunda* is an elegant shrub, which tells well in a border. The *Pyrus Japonica* is a very early bloomer, and when stunted in pots, will flower at a foot high, and frequently have flowers on a great part of the winter. We cannot be too careful in labelling plants that are liable to die down in the winter; for all our planting must be guided by what is already in the ground. Weeding is necessary at all times, cleanliness always essential; but we are this month almost exclusively indebted to the *Chrysanthemum* for the only flowers we have, and we must make the most of them.

In planting Bulbs, too, we are too often careless as to labelling; we make sure at one time that we cannot forget where we put this, that, or the other, although it goes from us as completely as if we had never done it. To place a mark where we plant a thing, therefore, is absolutely necessary.

Subjects in Flower.—These are chiefly things out of season—protracted Annuals, Autumn Roses, Polyanthus throwing up autumn blooms, which the florist would rather not see, Auriculas the same, Michaelmas Daisies, Wallflowers. Chrysanthemums are the principal ornament in season, Dahlias, if not cut off by frost, Daisies, Colchicums.

THE VEGETABLE GARDEN.

Artichokes, Jerusalem.—Dig them up if it be not done already, and store them as you would potatoes, unless you intend to keep them in the ground to be dug up as wanted.

Asparagus.—Look to last month's directions, and if not attended to, lose no time in earthing up the beds, and making them square and neat.

Making Asparagus Beds.—First mode.—Dig out four feet width, two feet deep, and throw up the stuff on both sides; with the earth thrown out, mix half its quantity of rotten dung, and after well amalgamating the mass, return it to the bed till it is filled four inches above the surface, and let it settle; when it has gone down all it will go in settling, put more soil on to raise it a good four inches higher than the old level. Now, draw a line down the centre of the bed, and two lines of each side the centre, nine inches apart, thus occupying three feet out of the four: get *one year old* plants and put them down the lines so made, nine inches apart, which will make all the plants that distance every way. Spread the fangs of the root out, and fix them in their places with a handful of soil. When the bed is all thus occupied, put on three inches of soil, so that the roots with their crowns will all be two inches deep from the top of the crown of the root; make the sides all square, and the top level, and they will do till this time, or at least till October, the next year, without earthing or

disturbing the surface; then cut down the stems of the plants, throw up an inch or two of soil, half mould and half rotten dung; square the sides, and the bed will do till the following October or November. Then we must prepare for cutting the following spring, by digging an alley out on each side the bed, six inches deep from the original level, which will be a foot lower than the top of the bed; and wheeling away the stuff, put on the top of the bed enough loam and rotten dung to raise the surface to eight or nine inches above the crowns of the roots, clearing out the alley, and banking up the sides of the bed sufficiently sloping to prevent the soil from washing down into the alleys. The Asparagus will be ready to cut in spring.

Second mode.—Make the bed proportionally narrower, and only have three rows; the alleys to accord, but no difference in any other respect.

Third mode.—Make the beds only eighteen inches wide, and plant single rows.

Fourth mode.—For gentlemen's tables, whether one, three, or five rows, do not earth up more than three inches above the crown, and let the buds grow three or four inches before they are cut, and only cut two inches below the surface. This would not carry to market; but nearly all will be eatable, the flavour much finer, and much less trouble required in cutting. In the ordinary way there are six or eight inches of white hard stick

which cannot be eaten, and not more than an inch that can. But there are several reasons why market gardeners adopt it: First, because it carries well to market, and is easily tied; secondly, because the retailers, who do not like it to spoil on their hands, can keep it a week or more, and it still looks the same after a little soaking in water, however much worse it may eat; whereas if cut for a gentleman's table, it is not wanted to carry nor keep, and they can have it in perfection.

Beans, Broad.—Get in a moderate quantity to come in early. Six inches apart in the row is quite near enough, and two feet from row to row; and you may get some sown in a patch, that can be covered with a glass, or litter, to be planted out when got over the winter.

Beetroot must be taken up, and packed away like carrots, if not already stored.

Brocoli.—All we have to do with these plants is to stir the earth occasionally, when rains have run it together, and when the head shows, to break down some of the leaves, to keep it from frost and wind. This will not save it in the event of a very severe visitation, but it protects it from frosts that would damage it if exposed.

Brussels Sprouts want much the same treatment, except that there is no head to protect. If they have grown as tall as you wish, take off the heads, the first time you want a dressing of summer greens: it induces the side heads to grow sooner and

between the crops of young Cabbage, and draw earth to the roots. Plant out more from the seed bed close together for greens, in room of Coleworts, six inches apart in the row, and the rows one foot from each other. When large enough for use, begin upon alternate rows, making them two feet apart, and then take out two of every three, and it will leave them eighteen inches apart; quite wide enough to cabbage well. When the Cabbages are nearly all cut, remove the stumps, pick out the best to plant very close together, in some spare bit of ground, for the sake of the sprouts they will give in winter, when others may be scarce. Dig and dress, or trench and dress, the ground they come off, ready for any other crops.

Cardoons.—Continue earthing up as you would Celery, keeping the leaves close together during the operation, to keep the soil out. Nevertheless, we do not think them worth the trouble.

Carrots.—A few may be sown on a warm border, for though it is rather a lottery, there are seasons which allow them to escape, and give us a few early in the spring; look over those in store to see that they are in condition, and not mildewing or decaying.

Cauliflower.—Those underhand-glasses must have all the air that can be given in fine open weather, by taking off the glasses, but they must be covered up early in the evening. Clear up the seed beds, and plant all out pretty close, where they can be protected by matting, or transfer them to the frame ground, to be wintered there.

Celery.—Continue to earth up

loosen the earth,

on dry days, and keep the crumbs of earth out of the hearts.

Coleworts.—pretty generally superseded by young Cabbage plants, may be planted out equally thick, to use for greens when large enough.

Endive.—Blanch this as required for use, either by tying up, or by covering with a tile, or flat board, those which are the most forward. Where this is grown much, covering with litter is a good plan of preserving them from ordinary frosts.

Eschalots.—Plant now, for it is the best season of the year, though it can be done months later; the early planted give most increase, and grow best.

Garlic.—Treat the same way.

Herbs.—Hoe the herb beds, and keep them clear of weeds. For Salad Herbs look to Salads.

Horseradish is better planted this month than in January; but it should be done in the way recommended for that month.

Kale, Scotch, or Borecole.—Loosen the earth between the plants, draw some of the soil to the stems, and keep clear of weeds; and if this has already been done, hoe and loosen the ground just the same.

Kale, Sea, only requires to be kept clean, it being already earthed up for the winter.

Lettuces.—As these are a crop dependent on the weather, all we can recommend is to sow a few seeds; continue to plant out from the seed beds, and keep up a succession as long as the frost allows you to enjoy them. A covering of light litter is frequently of great service, for there is often two or three weeks' mild weather after a

frost, that would kill a Lettuce if unprotected, and they progress without any particular care, sufficiently to assist in a salad.

Onions.—Let these be weeded, and instead of hoeing to thin them out, let them be drawn for use in salad, &c. Look over the Onions in store, and remove any that are damaged, or have begun to decay.

Parsnips.—These may be all dug up, if not done last month, and packed away, like Carrots, in sand or light earth.

Peas.—Sow a few Peas to stand over the winter; any of the hardier sorts that do not grow too high. Choose a warm situation; tread them well in that the birds may not pull them up; if they are eaten down to the ground and not pulled up, they will grow again. We should sow a few every three weeks, but some prefer to wait till the first are up, before they sow a succession crop. Directly any peas are up, clear them, break the lumps of earth, and put sticks on both sides, sloping so as to meet at top. It will prove a great protection against birds and frost; and if you are inclined to take some pains, you may lay a little litter along both sides, high enough to break off the winds. Look to the directions for January.

Potatoes.—If any remain in the ground, take them up and store them; if some have been late planted and are white, like new Potatoes, store them in solid earth, so that no air gets to them, and they will pass in March or April for new Potatoes; by storing them solid with earth all round them, they will not lose their white skins. Potatoes may be

planted now, but they must be six inches deep.

Radishes may be sown on a warm border, to be covered with litter. Onions and Lettuce may be sown with them, if likely to be wanted; sometimes they will survive a mild winter, even without covering.

Rhubarb.—You now make plantations of this useful subject. If you have established plants that you desire to propagate, dig up the roots, and part them into as many pieces as there are crowns, or buds; they may then be planted in good rich ground, four feet apart every way; the crowns three inches deep. The established plants have only to be cleaned, the ground dug or forked between the plants, and so remain till it is desirable to hasten them, when a barrow-full of stable litter on each plant will bring them forward much earlier than they would come without it.

Salads.—Of the many subjects that help to make a salad, the small herbs Mustard, Cress, Rape, and Raddish are the most useful. Sorrel, Dandelion, American Cress, and Corn Salad, grow the year round, and the small salads, Mustard, Cress, Rape, and Radish may be sown very thickly, that they may draw up to long stems. It will grow in any place, even in a kitchen, and may certainly be had every month in the year; for it should be eaten before it has any but the seed leaves, and the stems should be two or three inches long. Where there is a good consumption, they should be sown every week, and only for a week's supply.

*Savoy*s merely want to be kept clean, and to be earthed up.

Spinach.—As soon as this is well up, it should be hoed out, so as to leave the plants from six to eight inches apart. If they are sown in drills, the work is more than half done, because they only have to be hoed one way; let the drills be eight inches apart, and keep the plants full eight inches apart in the rows. The leaves only are dressed of this sort when they grow large enough. The leaves are picked off singly when full grown, and the plants left to grow again: it supplies leaves all the winter and spring.

Turnips.—Keep the crops clean by weeding, and pull out some plants where they are too thick: sow a few on speculation.

Watercresses.—These can be grown in a wet puddle, but they are not worth the trouble unless there is a facility for the supply of fresh water. We have seen them grown where the water had to be supplied by a pump; for any small puddle that the water will stand in will keep them growing: they have only to be planted in three inches' thickness of soil, on the clay bottom of a pit that will hold water; cuttings are sufficient.

GENERAL REMARKS.

November is the month in the year that is best adapted for all sorts of changes; making or altering gravel walks. It has some advantages over October, which, however, if fine, is good and should be taken advantage of, when there is much to do, for it will often turn out that November is wet, and work never goes on well in sloppy weather. Never, therefore, let a day pass without doing something towards your alterations,

if you have to make any. You must send off to the frame ground anything that wants protection; clear off all crops that are done with: dig, or trench, and dung all the vacant spaces, and be ready to sow or plant out anything you have ready to go out.

Vegetables in Season or in Store.—Beet, Brocoli, Cabbage, Carrot, Parsnips, Potatoes, Celery, Cardoons, Endive, Turnips, Sprouts, Spinach, Savoy, Radishes, Peas, (if weather favourable,) Onions, Leeks, Lettuces, small and other Salad Herbs, Pot Herbs.

THE ORCHARD AND FRUIT GARDEN.

As this and last month are the best in the year for planting, let there be no exceptions understood: all fruit-trees, bushes, and canes, should be planted this month if possible, whether standards, wall-trees, espaliers, gooseberry and currant-bushes, or raspberry-canies; this is the month, of all others, the most preferable, therefore let planting be the first consideration. Pruning is not so important; it can be done in any of the months between the fall of the leaf and February. In choosing trees from the Nursery, select clean stocks, well worked, and be careful that you go to a respectable Nursery, where you will have what you go for; and the first and last lessons in planting, though we cannot too often repeat them, are, *first*, to remove every bruised and damaged portion from the roots; *second*, never to plant them lower than they have been planted before, that is, the collar of the root even with the surface of the ground; and, as the ground will always settle down a little, let it be higher than the dead level, that it may be still even with the general surface when the soil has subsided into its place; *third*, to lessen the heads of trees in proportion

to the damage the roots have sustained by removal; *lastly*, to fix the trees by means of stakes or fastenings to the wall, or by some other means, so that no wind can disturb them.

Pruning Vines.—This work may begin as soon as convenient, although we have given all the necessary directions in the Calendar for January, which is in general the period when out-of-door pruning commences. We can add nothing here, but generally refer to January operations for information upon all subjects connected with the Fruit-garden; our notices of the different trees and bushes will, therefore, be very brief here.

Almonds.—These may have all their weak branches cut away, by which we mean those which are too small to bear fruit or bloom; for as it is a tree more belonging to the Shrubby than the Fruit-garden, it is as much valued for its bloom as for its fruit.

Apples, Pears, Cherries, and standard trees generally, should be pruned as directed for January, and, indeed, we might have referred to that month for planting; but although it can be done in January, that is the latest month to which it can be safely

deferred: we give the preference to this, and the sooner it is done the better it is for the plant.

Apricots, Peaches, and Nectarines, are also treated of in January, though we do not recommend any one to wait till that month if the work can be done before.

Currants and Gooseberries. — There are several methods of pruning these common subjects, and generally the easiest is the best, or the best is the easiest; that is, cut off all laterals pretty close, leaving the main branches almost bare with a good leader, which, unless too long, should be left on. Some have a strong lateral here and there, but with no great advantage. If there be a very strong lateral, it may be a question whether it would not make a better branch than the old one; in which case the old one may be cut back to it. Black Currants do not like the knife, so that we generally confine the pruning to cutting away all the weak shoots, and all that grow inwards or across, and leaving the strong wood on.

Raspberries may be pruned now. This consists in removing all the canes but the strongest three, and shortening these to four or five feet, according to their strength. Plant in rows four feet by six.

Strawberries. — Although beds can be made as late as January, they will ripen freer and earlier if finally planted now. The best plants are the runners of the last summer, which should have been pegged down so as to get well rooted, but any runners with roots will do. This delicious fruit is so easy to cultivate, that we have

only to direct that the ground should be strong, that the plant shall be put firmly into the soil, and there the mystery of strawberry-growing ends; the situation settles all the rest. They do well at the edges of the borders, in a Kitchen-garden; they do equally well planted in rows on a warm border, a foot apart in the row, and eighteen inches between the rows. They only want room, light, sun, and good air. For general management, see the different seasons.

GENERAL REMARKS.

Where you find trees that will not bear fruit, but grow to wood, play no tricks with them, by notching and ringing the bark, distorting the branches, or training unnaturally. Go at once to the root, for that is the "root of the evil;" dig down, till you find the strongest, or some of the strongest limbs, and at some distance from the trunk take a portion off; or, if you can get all round, and find one more vigorous than the rest, cut it off about the same distance from the tree as the others seem to reach. If this be done without disturbing the roots, (and it is easy to do so, because you need only cut it through; it answers the same purpose as it would to take it out,) it may have the desired effect the first season. We do not mean that it would bear abundantly, but that the growth would be less vigorous, a prelude to fruiting. In orchards where there is grass, it should be kept eaten off, or be occasionally mowed; where there is an under crop, care must be taken that the roots of

the trees are not damaged by digging the ground. Raspberries, Strawberries, Walnuts, Filberts, Chestnuts, Grapes if preserved carefully, Currants if matted, late Nectarines.

Fruit in Store.—Apples, Nuts, Medlars, Pears, Plums, Quinces,

THE NURSERY.

Clean the Beds of Seedlings that were sown last winter or spring; remove all weeds—to let in daylight and air.

Cuttings may be taken from Gooseberry and Currant Trees, Roses, and many deciduous plants, trees, and shrubs.

Herbaceous Plants in stock should be parted and planted out, whether they be a general collection, or a few select sorts.

Layering those subjects which do not strike freely from cuttings may be begun now; for there is enough of these things to carry on all through the winter.

Layers that have well rooted may be cut off and planted out, especially Rhododendrons and Azaleas, Magnolias, Arbutus, and other choice shrubs, and the new growth of the stools be layered in their places.

Newly Budded and Grafted Subjects must be examined and pruned, all the growth of the stock taken away, the grafts and buds stopped or side-pruned, according to the intention of the tree; and this applies, among other subjects, to Roses, Dwarf and Standard Fruit Trees, Evergreens, ornamental trees and shrubs, and everything either budded or grafted the last spring and summer.

Commence also digging be-

tween the trees and shrubs, to let air in to the roots; and clear away the weeds—or, in many cases, forking is better.

Prepare the Land that may be vacant for the reception of new plantations, by trenching, digging, and dressing.

Pruning all the young trees that are to be trained to a particular form may commence now, and go on for a considerable time.

Seedlings that are large enough may be bedded out, and young trees that have grown too close may be thinned by taking out alternate plants, or the whole may be transplanted in new beds further apart.

In treating of Nurseries, it is not to be supposed that we presume to address ourselves to the managers of commercial nurseries, but to those who, in addition to all the other departments of a garden, have a space appropriated to the raising of young trees for their general plantations, where it is a part of the gardener's duty to provide for planting different parts of the estate, and find plants for his own use in the Shrubberies, belt round the park, and portions of the dressed ground,—a place set apart for whatever wants raising or growing up into use.

PITS AND FRAMES.

ALL things that want temporary shelter, but no fire, must be transferred to this department from both the Flower and Kitchen-garden; but so far as the Kitchen-garden is concerned, a few lights of Cauliflower is perhaps the extent. These may be planted in the frame six inches apart—the frame first being filled with good loam and dung to within six inches of the glass—carefully watered in, and then they will require nothing but plenty of air, very seldom any water, but from time to time the dead leaves picked off, and to be covered against frost. With regard to flowers, we must take them in turn.

Auriculas, the most ticklish of all the subjects, want care and regularity of attention; very little need be done, but that little must be done. The January instructions must be rigidly observed from the time they are first in the frames. They comprise plenty of air, light, room, shade when the sun is very hot, and water when they are dry, and that is but seldom.

Carnations and *Picotees* must be free from damp, have abundance of air, and be seldom watered. See January.

Cinerarias will not bear the frost, and yet want as much air as possible; and in all these cases things must be watched. They must not be covered close, except in hard weather; and when they must be shaded, the glass must be tilted at all four corners with

flower-pots, that the air may circulate underneath.

Polyanthuses and *Primroses* are always in danger from slugs: look well to this. Let them have air, water, but little sun, and as much light as possible.

Pinks and *Pansies* in pots are more tender than in the open ground, because a frost would go through the sides of a pot when it would not enter the ground far enough to hurt the roots; but they must have plenty of air, and water only when they are dry.

Pits.—These are receptacles for Azaleas, odd Heaths, Botany Bay plants, Americans, small shrubs, half hardy herbaceous plants in pots, Camellias, and many Greenhouse plants when there are more than the Greenhouse will hold. Brick sides will keep out more frost than wood will, and may be called the refuge of the destitute.

Tulips, *Early*, and all *Bulbs* intended for forcing, must be placed in a cold frame, and there kept until wanted. We have already observed that they want nothing but occasional watering for some time. They will be kept back, because they need not be covered against frost, and a wooden cover would do quite as well as glass. They will be making root at first, but they will be better without the sun until they begin to shoot upwards from their bulbs; then they must have light, or they would draw up ugly—a very common result when covered.

THE FORCING GROUND, ETC.

Now the fruit trees must be put into an intermediate house to prepare for forcing. Examine the pots; see that the plants have room for their roots, and select those which have plenty of fruit buds. Apricots, Cherries, Figs, Peaches, Nectarines, Plums, Vines in pots, and Strawberries, all require to be brought on by degrees, beginning at 40° or thereabouts, and gradually increasing, after a week or two, to 45°, and then to 50°, and after being a few days at that they may be got up to 55° or 60°, and kept at that, where we may safely leave them to the management for January and subsequent months.

The forcing of Asparagus, Sea Kale, and Rhubarb is generally begun later than this, but it may be begun now as well as in January. The first two are well described in January; but if the roots of Rhubarb, without any soil, were thrown into the stove under the stage or table, or among the pipes, or in any corner, it would grow, so that any absolute instructions would be out of place. If it were potted it might grow handsome, but even that is doubtful. However, it may be potted and put into any corner of a house of any temperature above 40°; it would grow, and if in a high temperature it would grow rapidly, without any kind of management except pulling it for use.

Cucumbers and *Melons* may be begun now, but they must be

begun just the same as if it were January (which see); for anything more would be a mere repetition of those instructions.

The Pinery is capable of forcing Strawberries; and Grapes may be grown in the same house: but we prefer growing Vines in pots that are intended for the Pinery, unless there are succession pits for Pines, where they can be put while the Vine is gradually brought on. In the directions for January we have been very explicit on all those subjects; and this month and next we have only to prepare for the January treatment,—only it must not be forgotten that, begin forcing when we may, the plants must go through the gradual increase of heat; consequently pots that are to be forced in the Pinery, which is 70° perhaps by day, and 65° at night, must have been prepared in other houses.

VEGETABLES.

French Beans will do as well now as in January, and of course be earlier.

Potatoes, Peas, Radishes, Salads of sorts, *Onions*, and all kinds of herbs may also be commenced this month, as well as at the beginning of the year; and in hard winters, Mint, Fennel, and other herbs that are used green, should be potted up and forced.

FLOWERS.

The most important and the most showy of all spring flowers are the bulbs, which should be

now in a cold frame and without light, to be brought into the forcing frames or houses as wanted. The Early Tulips, Hyacinths, Narcissus, Crocuses, and others should be brought in, a few at a time, and then in a fortnight a few more, and so on until all have been forced; but when we begin so early as this, we ought to have enough to keep it up until May.

Azaleas, hardy and tender Rhododendrons, Lilacs, Kalmias, and all the forcing subjects should be brought in, a few at a time, due regard being had to the number required and the period at which they must be ready.

Many herbaceous plants force well, and almost any flower is acceptable out of season. The Dahlia can be as well bloomed in June as at any time; but it is regarded more as a garden flower than fit for a house, so that it is seldom forced except to propagate. *Dielytra Spectabilis* forces well, and is an elegant plant, both in itself and in bouquets. Stocks and Mignonette force well though annuals, but they are got up and forwarded in very gentle heat, and ought not to be bloomed in a high temperature. As they are apt to draw, they are mostly sown in frames, in very slight hot-beds, and are perhaps better without any heat; but they must be begun according to the time they are wanted in flower. Pinks and Pansies will bear forwarding, but they are not required very early. In fact, whatever is desirable very early, can be forced by degrees, beginning cool and gradually raising the temperature.

Roses.—These require great attention, but it is necessary to begin early, and go on slowly, otherwise they will draw up weakly, and then they require props and ties. Like Geraniums, they almost want a house to themselves. The green fly is troublesome and can only be got rid of by fumigation when it appears.

Greenhouse plants can be hastened very considerably. The same rule applies to these as to everything else: we have to avoid sudden changes from cold to heat. Hoveas, Acacias, Camellias, Cinerarias, Hydrangeas, the China Primrose, Fuchsias, may all be got into bloom weeks earlier than their usual time, without materially drawing them up; and if any of these hard-wooded plants have begun their new growth, it should be taken off and used as cuttings if necessary; but taken off they must be, for the continuance of their growth on the plant would greatly deteriorate their bloom.

Begin, therefore, now to select those things that you wish to force, and put them in very slight higher temperature, and keep them a week or two before you attempt to raise it. You can then transfer them to the Vinery, Pinery, the common stove, or the proper Forcing-house, from time to time as you want them; and when the flowers of anything, no matter what, are about to open, let them be taken to the Conservatory, or the dwelling-house, or wherever they are to continue their bloom, because they will last very much longer.

STOVE OR HOTHOUSE.

As the season advances, this department may have to represent several others. It may be the only convenience for forcing many things, besides doing justice to its own regular inmates; the proper temperature ranging at 65°—70° during the day, and 55°—60° at night, but the variation may not be quite so much. All the ordinary Stove plants, most of the *Amaryllis*, *Achimenes*, and *Gloxinias*, are at rest, and need no water, but may be lying on their sides to prevent accidental watering; but many of the leading plants are in full growth, and all require examination, to see if their pots require changing, for they must have this when the roots begin to mat.

Most of the Stove plants now require moisture in the atmosphere of the house, to accomplish which the pipes may be watered, or the floor flooded, to create a moist vapour; and no plants require this more than the *Gardenias*, of which there are several varieties, the largest and best of which is *G. Fortunei*, with flowers more symmetrical than *G. radicans*, and as large as a *Camellia*, but all plants require it as an antidote to the red spider, or, rather, a preventive. Let the heat go down, and the house get dry, and red spider and mealy-bug will very soon play havoc with many of the plants.

It is impossible to impress upon the gardener too earnestly the necessity of cleanliness in the house. The pots, the plants, the

table they stand on, the shelves, glass, and flooring, ought to be kept free from dirt and dead leaves,—for it soon accumulates, and the ill effects are very shortly apparent. The surface of the soil in the pots soon runs together by constant watering, and requires stirring, which, however, must be done without disturbing the fibres. If the surface has become mossy, it is as well to throw it out and put a little fresh as a top-dressing.

Climbing plants require pruning and regulating when they have done flowering and are at rest. Many, however, continue growing and blooming for a considerable period.

There is always a period when a plant has a sort of rest, and it is then that pruning should be done. If the gardener would take the Rose for his guide, a plant which he keeps in good form by annual pruning, he would recollect what an ugly rambling plant it would be if allowed to grow its own way; and a vast majority of hard-wooded plants are as bad, and want pruning as much. Most of them should be trimmed into form; making allowance for the new growth, and calculating upon what will aid the general form of the plant eventually, he might always keep it handsome, instead of allowing, as too many gardeners do, the specimen to take its own way and become naked at the bottom, or one-sided, or otherwise ugly.

Cuttings and small plants may be treated as before.

CONSERVATORY.

ALL that can be done now to keep up the brilliance of this department, is to gather in the plants in flower from all the houses. Dahlias in pots, Chrysanthemums, Balsams, Cockscombs, Cinerarias, Primulas, Annuals, Camellias, Heaths, Stove-plants, of which several are now gay, Roses, of which some, with care, can be always found in bloom, and so dispose them as to equalize the flowers all over the house.

Every part must be kept excessively neat and clean, for there are but few gaudy things to divert the eye and attention from the building itself, and that naturally enough rests on defects, if there be any, but with a little forethought, flowers may be always found to keep up a lively appearance.

The plants growing in the beds or borders of the Conservatory must be kept neatly trimmed, and especially must the climbing-plants be regulated and made neat and clean. Old flower-stalks must be trimmed off; long straggling branches must be either fastened in or taken away. All symptoms of decay are bad, and this will entail upon the gardener the constant labour of cutting off seed-pods, and whatever else the flower may leave behind.

The borders, too, must be stirred

and raked even; leaves and petals swept away. Plants in pots, having done their work, may be removed, and handsome evergreens, kept for the purpose, may form a very ornamental feature in the Conservatory. The Conifers afford many splendid examples of interesting foliage, so that there is no excuse for having the general effect worse than it is at any time of the year, though it may require a little care and forethought.

Even common shrubs, if handsomely grown, will give effect. The Laurustinus, Pyrus Japonica, Andromeda Florabunda, and Rhododendrons, grown handsomely, may occupy prominent places advantageously; for they are fine bushy shrubs, and the first three will flower all the winter.

In fact, there is no excuse for leaving the Conservatory bare or poor at any period of the year. A little care and study, and some taste, will enable a man to make constant changes, and make all good.

Look well to fires, for the nights may be frosty; not that the house requires to be hot, but that the frost must, at all events, be kept out; and watering and giving air, though not so often to be attended to, must nevertheless be minded at proper times. There is great danger in neglect.

GREENHOUSE.

THIS house must, by this time, be finally arranged for the winter, and we presume it to be a mixed collection of the popular Green-

house plants; some portion, however, being occupied by plants preparing and on their way to be forced.

The first object, here, is to give abundant air in fine open weather, and to close against damp, and east winds; the next is to see that no plant suffers for want of water, and take equal care that none have it without wanting it, for there is more danger in excess than in deficiency.

Then there must be a general examination, from time to time, to see that plants are shifted from smaller to larger pots when they want it, beginning at the seedlings and rooted cuttings, which want their first potting, to those of larger growth, which have filled their present pots with roots, and so looking through the whole of the plants in the house. In shifting plants, there must not be too great a change; over-potting, as it is called, when pots are too large, is bad, and for this reason: every time a plant is watered, the dung in the earth, or whatever else it contains good for plants, must wash away a little, and before the roots occupy the new soil, it gets impoverished and of little use to the plant; so that when theorists recommend growing little plants in large pots, they make the greatest imaginable blunder. When the shifts are but small, the roots already in contact with the new soil revels in it, and before it has time to get impoverished the root has taken full possession, and had the full benefit of it; when it may be shifted again, and go on as before.

The Greenhouse is, most of all houses, liable to damp; on this

account the floor should be kept dry and clean, by sweeping away all dead leaves, and frequently brushing down the shelves. The plants, too, should be kept clean, the surface of the soil in the pots stirred; and, besides all this, it will be necessary sometimes to light the fire on a fine day, and heat the house, leaving plenty of escape for damp, and thus dry off the house.

As some of the plants should be pruned when the flower declines, and before the new wood is made, so others which bloom in the new wood should be pruned now—for instance, the *Deutzias*, *Weigelea Rosea*, *Abutilons*; and some others flower on the new shoots. These may be pruned into the most desirable form, due regard being paid to the probable growth of the new shoots, and allowance made for that addition to the size and form; whereas *Epacris*, *Acacias*, *Hoveas*, and many others, make wood directly after the bloom, and the next spring flower upon these that may be called one-year-old shoots.

In other respects, manage the Greenhouse as directed in last month's calendar. On no account allow the frost to enter, but very gentle fires will keep it out; and one night's frost, unless very severe, will not enter. If by any chance you should be taken in, keep off the sun, and light the fire, to gradually thaw it in the shade. It is the too sudden transition from frost to heat that kills a plant. Cover up, therefore, from the sun till the plants are thawed. It is not a bad practice to syringe and shade plants when they are frozen.

HEATH STRUCTURES.

THIS family of plants require, more than any other, abundance of air, and does not require artificial heat. The great aim of the cultivator should be to have the means of covering, in preference to heating against frost. Open all the means of giving air and even wind, in mild weather, and close on the windward side only, even when easterly.

Shifting to larger pots all those that have filled their present ones with roots, is a matter of necessity all the year round, and it has to be done without disturbing the fibres which are next the pot, and consequently outside the ball when turned out. If, therefore, we are not careful in filling up the vacancy between the ball and the new pot, we may very easily disturb and fracture the tips of the fibres, which the plant would feel injuriously. It is in pressing the new soil down that the danger lies; a blunt piece of wood, half, or less than half the thickness that would go down, must be employed, and be made to rub down the side of the pot every time it is thrust down; we know then that it is impossible to rub the fibres.

Rooted Cuttings and Small Seedlings should be potted at first round the edge of a four-inch pot; the advantage of the larger body of earth, which saves watering, and the side of the pot, to encourage the young roots, will be soon apparent in their healthy growth. Some of these which have been so pricked out, as it may be called, are perhaps ready to be potted singly in three-inch

pots, and this must be done carefully; supposing three or four to be round a pot, take out the ball and stand on the potting table; thrust the finger down the centre of the ball, and they will be separated easily with plenty of earth: hold the plant by the earth that is to it in the centre of the pot, upon the level that will keep it as it was before; it had better be rather higher in the soil than lower, for the collar must not be buried in the least: then fill up with the soil, and let there be room enough between the soil and the edge of the pot to hold as much water as will go through all the soil.

As to *the time of sowing seed*, there is one rule that cannot be wrong:—Sow it as soon as you can get it. Nature sows it as soon as it is ripe, and the plant spills it about; therefore the sooner it is sown the better, particularly if it be seed you have not saved. It may be old when you get it, and the vitality of seeds has its limit; whatever, therefore, is grown under glass, and can be accommodated with its own climate, may be sown at any time.

Large specimens are more difficult to shift; and pots are now made with false bottoms that can be pushed up with the ball by merely pressing the bottom on a round flat-topped piece of wood, as tall as the pot is deep, by which the false bottom is pushed up level with the top of the pot, and the ball not put out of upright.

We have often said, and we must repeat it,—never water till the plants really want it, and then do it thoroughly.

GERANIUM HOUSE.

As these plants are on the move all the winter, the principal attention wanted is to stop the most vigorous shoots, to induce lateral growth and make a plant bushy, and to pinch out the tops of all the branches where a multiplicity of shoots is wanted. Every leaf that is left on a branch that has been checked, by its end growth or heart being pinched out, will give a branch at its base; and you may make a plant any shape you please by these means, and by removing shoots that come where they are not wanted,—and those which push inwards are mostly of this character,—they cannot conduce to the beauty of a plant, but, on the contrary, make it confused, crowded, and weakly.

All the growing plants of

smaller size, from the rooted cutting to the once or twice potted subjects, must be examined, and if they have filled the pots with roots, they must be shifted,—the cuttings that are rooted, into three-inch pots, and the potted plants into those of larger size. In watering the Geranium, see that the whole of the soil in a pot is wetted through; for partial watering, where only a portion receives the benefit, is a great check to a plant. Air should be given judiciously, but the temperature must not be greatly changed. On the least appearance of the green fly, let the House be well fumigated; and this should be done on a still evening, and all the plants should be well syringed in the morning, and shaded also.

CAMELLIA HOUSE.

HERE there is nothing wanted but plenty of air, and care that no frost of any consequence enters. This House is better covered than heated: nevertheless, in bad weather, fire may be necessary; still, when fires are on, and frost prevails out of

doors, there must be air admitted to prevent the temperature from getting too high,—a Camellia does not want a temperature above 45° all the winter through, and even that ought to be by daylight. If it went down to 35° at night, no matter.

WINDOW GARDENING.

As all the favourite plants are now housed, and must be considered in their winter quarters, there are two or three essential

points which must not be lost sight of: *First*, they must not have water till they really want it, and this can only be known by indi-

vidual examination, because one may be distressed for want of it whilst another may not require it for a week: the surface must be positively dry before a plant needs moisture, and, if it has it before it is required, there is mischief in supplying it. *Second*, when it is given, it must have the whole potful of soil saturated or filled full of it, and this can only be secured by watering till it soaks and runs through. *Third*, as most plants in houses are placed in pans, the water drains through, and they are too often left in it. Now, if this be not thrown away the plants are damaged; they cannot thrive standing in stagnant water; therefore, after watering, the extra drainage moisture must be thrown away. Plants do not show the mischief done to them directly; but the effects last a long time, and after some few, perhaps vigorous shoots, they dwindle till they die. There are very few exceptions. The musk plant will not suffer materially; and the whole *Mimulus* tribe and Sheath Lilies will actually grow in water; but it would be death and destruction to Camellias, Acacias, Heaths, and most other plants. It must be remembered that the frost will attack plants in the window sooner than it will in the middle of a room, and that it is desirable to remove them of an evening to a table away from the glass; not that they are positively secure anywhere, but a dozen frosts might damage a thing in the window that would not hurt them in the middle of a room.

At this time *Hyacinths*, early *Tulips*, *Crocuses*, *Narcissus*, and

Jonquils, should be potted or glassed, for they are certain flowers, but they may be left in any dark room, or cellar, or cupboard, until they begin to grow upwards, and then they must be brought into the light, and kept there until they bloom; and they will bloom anywhere. In the most confined spot in London, the bulbs we have mentioned may be bloomed in the window of a dwelling-house; and we have been frequently astonished that the London people, and those of close manufacturing towns, who love flowers, have been so negligent of their enjoyment; because frost does not affect these bulbs in pots, although the glasses may suffer if they are allowed to stand where the water would be frozen. There is nothing more ornamental than bulbs, or rather the flowers they bear; and nothing so certain of blooming, be where they may. In fact, the freezing of the water, though it may burst the glass, would not injure the bulb. In purchasing bulbs, never attend sales or mock-auctions. Nothing is more deceiving than bulbs to those unacquainted with them; because they may appear sound and good to the eye, when they are known to be bad. It is the practice, when the shops and respectable nurseries are supplied with the good ones, to consign the bad to people who sell them by auction; when they are put up in tempting lots for ignorant persons, who cannot tell them from good ones, to purchase. In this manner, thousands of roots (unsaleable among good judges) are disposed of annually, to the manifest injury of the buyer.

DECEMBER.

ALL THE DEPARTMENTS.

WE have now arrived at a period when no change whatever is necessary in the treatment of anything from November and January. The three months in the depth of winter can hardly be calculated upon. They may be frosty, and you already know what to do in that case. It may be wet, it may be fine, but the months are as likely to be one as the other. November may be frosty, December mild and fine, and January wet, or the weather may be reversed or changed. We can only take a cursory glance at all the departments, and give two or three hints, any of which may be accompanied with "ifs" and "buts," and our readers must take them for what they are worth. We may say, cover against frost, when there may be no appearance of it; but it must be remembered that the most severe comes sometimes after warm fine days. We may say, sow this or that out of doors, when the earth is icebound and cannot be stirred; we may think we provide for fine weather, and it may be bad, or caution and legislate for bad weather, when it may be fine; still we will glance at every department, and all we can say is, that "if" the weather prevents you from doing as you are told, you must wait till it serves, and do it as soon as you can.

PLEASURE GROUND AND SHRUBBERY.

Mowing must not be neglected where you have to keep the grass in good order, and the sweeping up and removal of dead leaves and litter of any kind is as important.

Pruning can go on among the shrubs and trees after the fashion recommended in January.

Planting is also better done this month than delayed, supposing it can be carried on.

Laying down lawns, making roads and paths, and all alterations can be conducted with advantage.

FLOWER GARDEN.

Here nothing of importance is required, unless left undone from previous instructions. Chrysanthemums will have done blooming, and the places they occupied must be made tidy by cutting them down or removing them. Covering up tender things and young seedlings against frost, weeding, cleaning, referring to January for all else that may be done, are all that we can recommend.

VEGETABLE GARDEN.

Here the duties are similar to those of last and next month. Presuming the ground to be in order, you may take January for

your guide on the repetition of crops, the management of the ground, and various other matters. Collect manures, soils, sand, clay, loam, turves to rot into mould, peat earth, and the droppings of horses and sheep, cow-dung, &c. for the various departments of the establishment.

THE FRUIT GARDEN.

Planting, pruning, training, and nailing, as recommended for January.

THE NURSERY.

A continuation of last month's operations will be all that is required here. A few hints, however, picked up from January may be useful.

PITS AND FRAMES.

No change from last month's directions. In following these as well as you can, you must be guided by the weather.

FORCING GROUND.

Take in plants which have been prepared for the forcing-house; begin Cucumbers and Melons, if they were not begun last month; look well to the temperature of the houses; the management of the vines, according to their present state; be careful in watering; syringe the fruit trees and plants coming forward with flower-buds; take in some of the bulbs, and also a supply of Americans and other shrubs; see that the tan is of proper heat, and if not, get fresh and mix with it; do not neglect to flood the floors if the atmosphere of the houses be too dry; also keep up a succession of Sea-kale and

Rhubarb; keep the Asparagus bed up to the proper heat; and consult the directions for January for any further particulars.

STOVE OR HOTHOUSE.

Precisely as last month; but fail not to disturb the mealy-bug if it appear, by washing it away with a brush and warm soap-suds, and afterwards syringing with clean water. If this be the only house for forcing, have a proper supply of flowering plants and shrubs from time to time.

CONSERVATORY.

Proceed as last month, bringing in every plant in flower from all the departments, placing them to the best advantage, and finishing off with evergreens.

GREENHOUSE.

Take last month and next for your guide. The principal things to mind are to supply all the air you can in mild open weather, to keep the house dry, and to keep out the frost.

HEATH STRUCTURES.

These cannot be too open if there be no frost, and the wind be not in the east. For all details, look to last month.

GERANIUM HOUSE.

The management of this plant during winter settles its claims to beauty at blooming time, consequently you cannot pay too much attention; but we can only say, attend to the directions already given. Repot the seedlings if they have progressed much in their present pots.

CAMELLIA HOUSE.

Continue to keep this as cool and of as even a temperature as possible. The plants will bear a good deal of cold, but cannot stand sudden change; therefore, by keeping down the temperature as much as possible, and shutting up close at night, it must be a very severe frost to get at them in one night. Covering the house

with mats is better than lighting a fire.

WINDOW GARDENING.

It is as much as can be done to keep your favourites alive; but this may be secured by attending to last month's directions, keeping them from too much wet and out of the way of frost. Stir the surface of the soil.

OF SOILS, COMPOSTS, AND MANURES.

It is of the greatest importance that we should provide ourselves with suitable soils for all purposes, at the time of year when there is the least other business to do; and perhaps there is no period of the year that we are more at liberty to do this than December and January: and the following are the most important subjects in use.

Loam.—Without this we can do nothing: it is the staple of all composts, and should be free from all deleterious substances. Loam in its pure state, or maiden loam, is free from vegetable remains, found in many places forming the native soil, and is variously described as fat loam, which is too adhesive to use alone for garden purposes, or sandy loam, which, if taken up by the hand in a powdered state, may be squeezed into the shape of the hollow of the hand, and may be laid down gently, but the slightest pressure breaks it into powder again. But as this may or may not be impure, that is, may contain what is useless or injurious, we have always recommended it to be taken from

a rich pasture; for where the grass grows healthy there can be nothing injurious. Therefore the top spit of a pasture is safe. We go further than this; or perhaps it may be said, not so far; for we recommend in all cases the turf only—let it be cut as if to lay down for lawns, and be stacked up solid, where the turf and fibres all rot into it; and in that state it is invaluable. All through our works on florists' flowers we have treated this as the basis of all our composts, calling it loam from rotted turves. This will of itself grow almost anything.

If this be found too adhesive, sand in such proportions as shall render it sufficiently porous to let water through it, will be good for all garden purposes. But, generally speaking, loam from rotted turves is composed of two-thirds pure loam, and one-third vegetable or leaf mould. It is necessary to stack a lot of turves every year, and at the end of the first year to turn it over into another heap. With the spade cut it down from top to bottom, slicing it, as it were, thinly, and

destroying, as the work proceeds, all bots, grubs, wireworms, and other living pests that may be found in it. At two years old, or something less, this will be fit for use. When used it should be sifted through a coarse sieve, to clear it of any rubbish it may contain, and, as it is sifted, whatever grub or wireworm may be in it will be exposed to the eye: when we therefore recommend loam from rotted turves, it is equal to recommending two-thirds maiden loam, and one-third leaf mould,—for they should be similar; for extra stimulants never agree with the general health and condition of flowering plants; extravagant growth is at the expense of the flower, and it is disgusting to see even Geraniums, fine as they are made to appear, with scarcely a truss of perfect flowers. Bone-dust in small quantities will greatly stimulate the growth of plants, and therefore we merely caution the cultivator not to use it, until, by trying experiments on plants of no consequence, he convinces himself how far he may go.

Peat Earth.—The turfy peat off a common, the top six inches, is the most useful thing in a garden; it is full of fibre and sand. In using it to mix, it is chopped up, and rubbed through a coarse sieve. It lightens the other soils and manures, and for Heaths, Hard-wooded Botany Bay plants, American plants (so-called), and other plants with slight-fibred roots, should form one-half to two-thirds of the compost.

Urine.—The value of this as a fertilizer is unknown to the community, and the Government

vies with the lowest class in ignorance. The Chinese, centuries behind in some things, are before us in agriculture. Liebig says, "The corn-fields in China receive no other manure than human excrement;" and Falkener says, "The agriculture of their country is the most perfect in the world;" and in another place he says, "We indeed want not abundant proof of the extraordinary effect of this manure;" and the analysis by Berzelius, of the solid and fluid excrements of man, show that they contain in a very condensed form *all the substances required for the nourishment of plants*. Another fact derived from experiments is worth recording. The excrements of one man will in the year yield the nitrogen of 800 pounds of Wheat, Rye, or Oats, or 900 pounds of Barley. In the face of these facts we are paying away millions for guano; and our government of simpletons have been polluting the finest streams of water, and destroying the most prolific fisheries with the valuable refuse which should be saved—nay, even now are about to expend millions to get rid of it, instead of imitating the Chinese, and appropriating it as a source of national wealth. Of the sewage generally, which is a mixture of the excrements, a nation can fertilize all the land necessary for the sustenance of the people; with the urine, which is of the greatest service in the cultivation of all crops, much may be done; but two or three points should be noticed,—first, it should be preserved by everybody who has a rod of ground to cultivate: secondly, this may be done without annoy-

ance, if it be thrown upon lime or charcoal, which then forms a rich manure: thirdly, if retained in a liquid form, it may be used at the rate of one part to ten of all the water required to moisten the crops; but if not diluted to some extent it is mischievous. In this diluted state plants in pots might be watered once a month during the hot months to their advantage, particularly if the pots be full of roots.

Leaf Mould.—We have in various places recommended the leaves to be carefully gathered together, and laid to rot. This will always be found useful, for it is one of those manures that do no harm when in excess.

Sand.—This must be pure; many use silver sand, which is considered the purest of all the fine sands; its only use is to mix with composts that would be otherwise too adhesive. River sand is equally pure, but not so small unless sifted; and we have seen sea sand used with equal success when thoroughly deprived of the salt by washing.

Dung.—This is so comprehensive a term, that we must particularise a little. *Horse-droppings*, thoroughly decomposed by rotting, is of great service; the *Stable-dung*, after being used for a hotbed, is always to be had, and is equally useful, but not quite so strong; *Cow-dung* rotted into mould is excellent; *Sheep's*, *Rabbit's*, and *Deer's-dung* are also good, and much of the same strength as cow-dung; *Poultry-dung* is very strong, and must be thoroughly decomposed to be usable,—it is chiefly used for liquid manure, and wants as care-

ful using as *Sea Fowl's-dung*, or *Guano*; *Night-soil* thoroughly rotted to mould is much the same in character as guano. All these may be kept separate; they must, however, only be applied in a very reduced state by water, or admixture with sand or other light soil; but water is best, and most certain.

Lime should be always at hand. Water saturated with lime—that is, holding as much lime as will dissolve in it—is always of one strength, and can be diluted from that to any given strength; whereas a given quantity of lime to the given quantity of water would be uncertain, as some may not be soluble. It is better to put a quantity of lime into a tub, and stir it well three or four times, when the water will be as strong as it can be made, and a quart of this to three, four, five, or more quarts of pure water, secures us against having it too strong. It destroys animal life much weaker than is required to injure vegetation, and that is its greatest use. In the open ground lime is necessary to poor moorish land, for it has made it produce good herbage where only heath and unpalatable grasses grew before.

Artificial Manures.—Falkener, the author of *British Husbandry*, says truly, “When the perfect manures, such as farm-yard dung, preparation of night-soil, guano, or the dung of other fowls cannot be obtained, recourse must be had to other mixtures. Now the substances the most likely to be exhausted from soils from the causes above mentioned (the crops taken off) are *Ammonia*, *Phosphate of*

Lime, Magnesia, Potash, and Gypsum." How confirmatory this of our early advice to florists, when we said the dung of a pair of carriage-horses was worth all the nostrums in the country!

Bone Dust is a strong fertilizer, and is used by some florists in the cultivation of Geraniums. We have in no case recommended it.

The Waste-hole.—This is the common receptacle for all the extra and useless vegetable matter; the dung of the stable-yard not used for hot-beds, the soap-suds, dirty water, offal, and slops of the house, and all the waste. Lime is of great service here, because it disinfects, and helps to decompose whatever goes into it; and the crops, and weeds, and waste, that can be dried and burned, half of which is charcoal, greatly assist. When a piece of ground wants preparing for Onions, Cabbage, or Turnips, a dressing from this is excellent; and, generally speaking, flowers do very well to follow, without dung or dressing.

Soot.—This is a powerful and valuable manure. The salts in 100 pounds of soot are equal to one ton of cow-dung. Its nitrogen gives it a value compared with cow-dung, as forty to one; and

we are told in the Appendix to the Muck Manual, that it "forms a capital liquid manure for the floriculturist: mixed with water in the proportion of six quarts of soot to one hogshead, it has been found to be a most efficacious liquid with which to water greenhouse plants." And we know it is an excellent fertilizer in the farm and garden.

Wood Ashes should always be carefully preserved for the land; and under this head we may consider the ashes of all vegetable matter. Weeds and waste must either be thrown to the dunghill or waste-pit, or be burned; the latter is most desirable, for in the ashes remain all that is valuable except what is supplied by the atmosphere. Sowed over turnips as they come up, and while the dew is on them, they are destructive to the fly, and when timely applied are a complete preventive.

Many other substances are fertilizers—coal ashes, woollen rags, fish, horn, farriers' sweepings, malt-dust, decayed vegetation, animal remains, the liquor in which animal or vegetable food has been cooked. In fact, there is nothing that will decay but what is good for the soil, if applied in proper quantities.

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